

# GSM Gateway Solution



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2010, Sales and Marketing

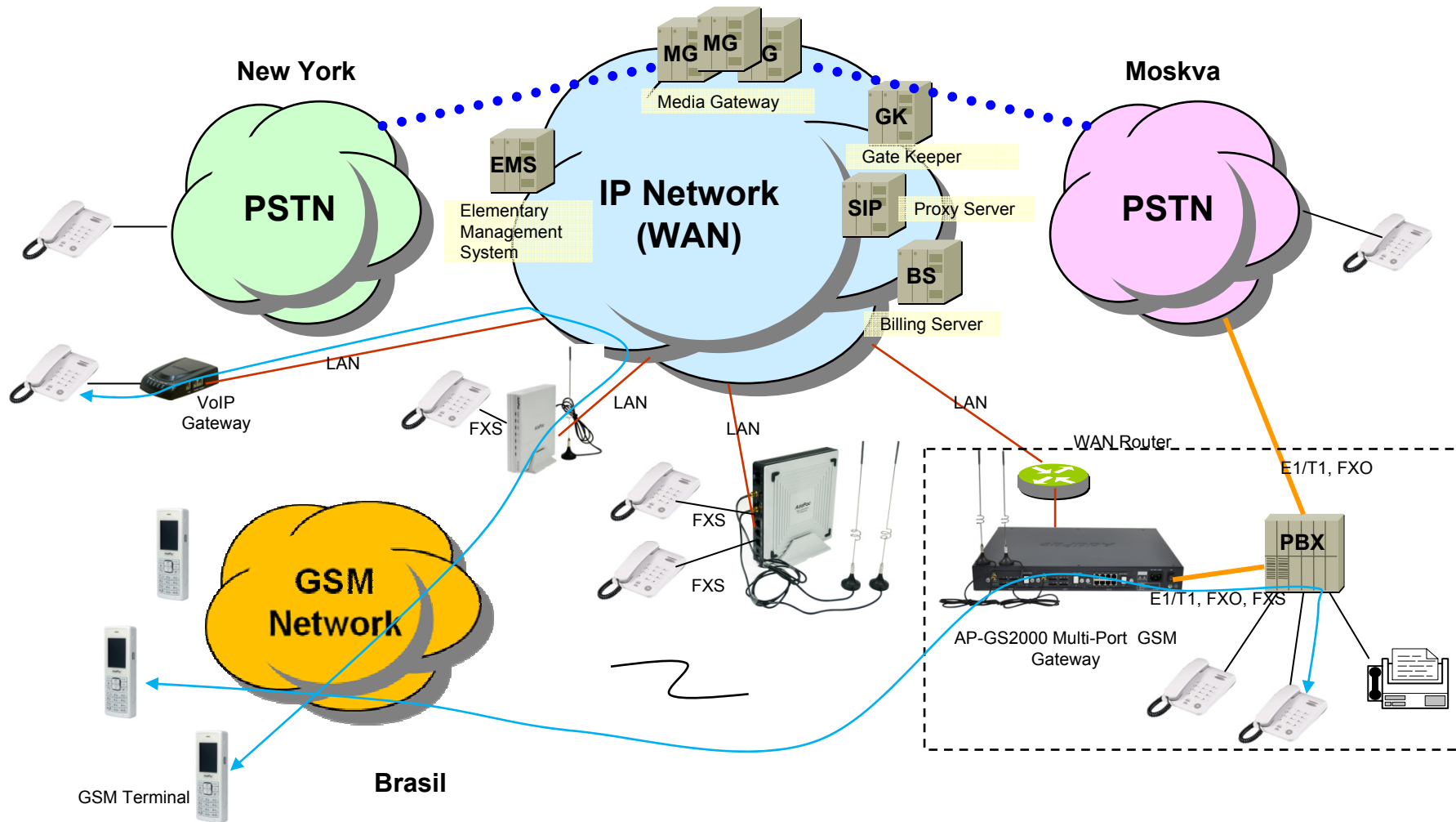
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- Smart Web Manager for GSM Gateway
- NMS (Network Management System) for GSM Gateway






# GSM Gateway Service Diagram










# GSM Gateway Series

# GSM Gateway Comparison Table

	AP-GS1001		AP-GS1002		AP-GS1004	
						
Model	Type	VoIP	Type	VoIP	Type	VoIP
	A	None	A	None	A	None
	B	1FXS	B	2FXS	B	4FXS
	C	1FXO	C	2FXO	C	4FXO
GSM Channel	1		2		4	
GSM Antenna	1		2		1 (4ch Combiner)	
Module Slot	N/A		N/A		N/A	
LAN Port	2		2		1	
Console	N/A		1		1	

# GSM Gateway Comparison Table

Model	AP-GS1500	AP-GS2000	AP-GS2500	AP-GS3000	AP-GS5000
					
Available Modules	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM8 AP-N1-FXS8 AP-N1-FXO8 AP-N1-E1 AP-N1-2E1
GSM Channel	Up to 8 Channel	Up to 12 Channel	Up to 16 Channel	Up to 36 Channel	Up to 80 Channel
GSM Antenna	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	Two(2) / 8 Channel GSM Module(AP-N1-GSM8)
Module Slot	Two(2) Module Slots for GSM	Three(3) Module Slots for GSM	Four(4) Module Slots for GSM	Nine(9) Module Slots for GSM, E1/T1 Module Slot	Ten(10) Module Slots for GSM, E1/T1 Module Slot
LAN Port	2	2	2	2	2
Console	1	1	1	1	1
Power	Single PSU	Single PSU	Single PSU	Single PSU	Dual PSU (module)



# AP-GS1001 GSM Gateway

# Main Features

## AP-GS1001 One(1) Port GSM Gateway

- One(1) Port GSM Gateway Service
- Analog Interface (FXS)/VoIP Interface(LAN) Both Support
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- High Performance LAN-to-LAN Routing Capability
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Light and Compact Design with External Power Supply



# Hardware Specification

## AP-GS1001 One(1) Port GSM Gateway

- RISC Microprocessor + DSP Computing Power
- 1-Port GSM Gateway
- 1-Port SIM Card Slot
- 1-Port GSM Antenna Interface
- VoIP Gateway Interface
  - AP-GS1001 Model A: Basic Configuration
  - AP-GS1001 Model B: One(1) FXS Port
  - AP-GS1001 Model C: One(1) FXO Port
- Network Interface for VoIP Direct Interface
  - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- Run LED, LAN LED, Port LEDs
- External Power Supply



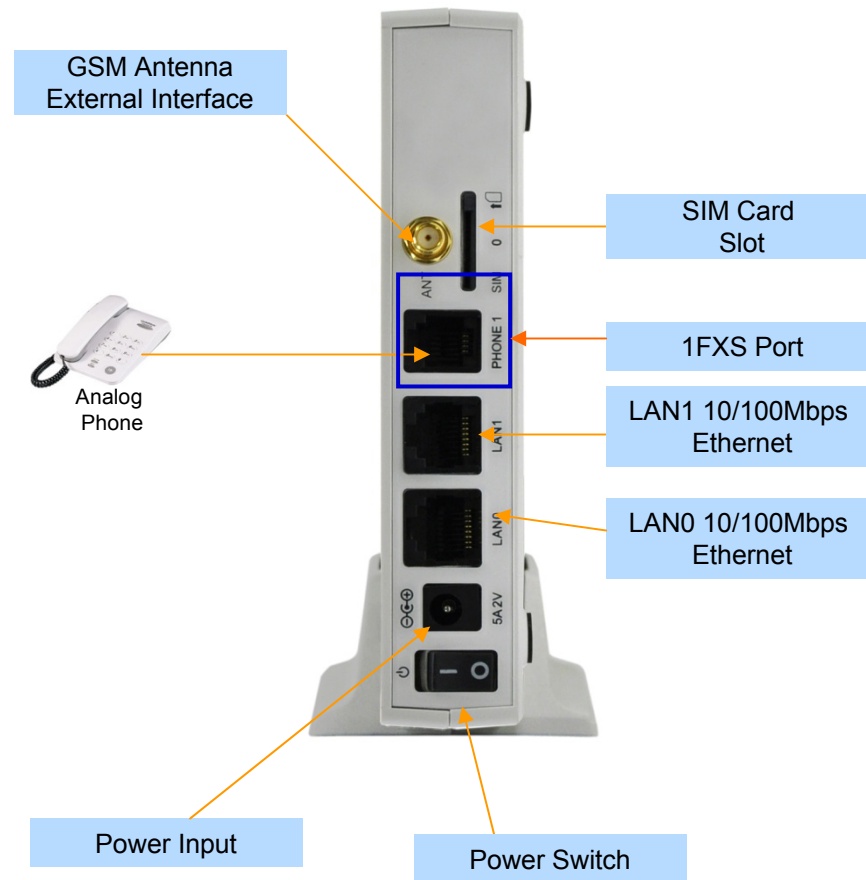
# Hardware Specification

## AP-GS1001 One(1) Port GSM Gateway



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### Network interface Configurations



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# AP-GS1002 GSM Gateway

# Main Features

## AP-GS1002 Two(2) Port GSM Gateway

- Two(2) Port GSM Gateway Service
- Analog Interface (FXS)/VoIP Interface(LAN) Both Support
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- RS-232C Port for Command Line Interface
- High Performance LAN-to-LAN Routing Capability
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Light and Compact Design with External Power Supply

# Hardware Specification

## AP-GS1002 Two(2) Port GSM Gateway

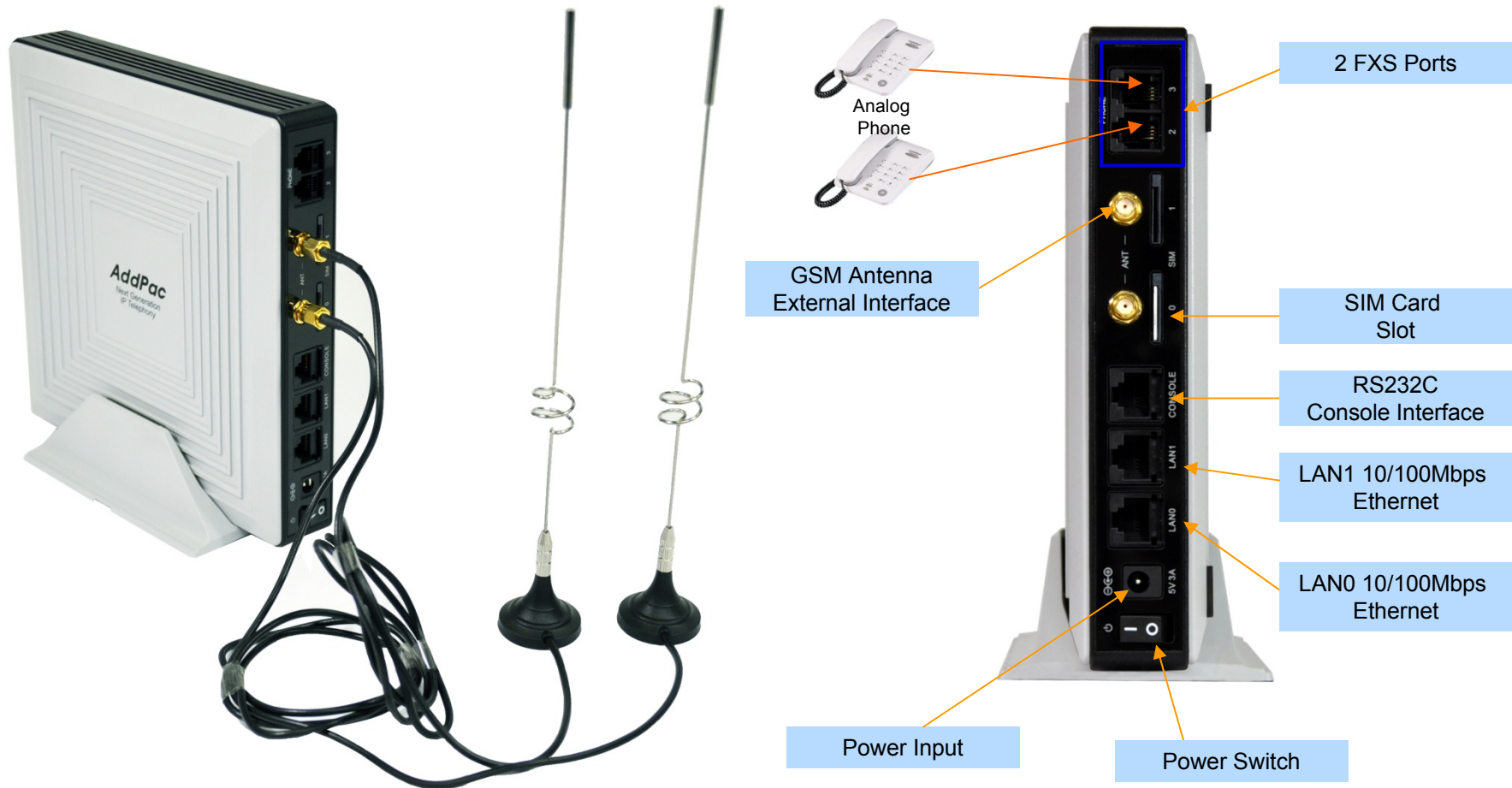
- RISC Microprocessor+DSP Computing Power
- 2-Port GSM Gateway
- 2-Port SIM Card Slot
- 2-Port GSM Antenna Interface
- VoIP Gateway Interface
  - AP-GS1002 Model A: Basic Configuration
  - AP-GS1002 Model B: Two(2) FXS Port
  - AP-GS1002 Model C: Two(2) FXO Port
- Network Interface for VoIP Direct Interface
  - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Port for CLI (RJ45)
- Run LED, LAN LED, Port LEDs
- External Power Supply



# Hardware Specification

## AP-GS1002 Two(2) Port GSM Gateway

### Hardware Specification





# AP-GS1004 GSM Gateway

# Main Features

## AP-GS1004 Four(4) Port GSM Gateway

- Four(4) Port GSM Gateway Service
- Analog Interface (FXS)/VoIP Interface(LAN) Both Support
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- One(1) 10/100Mbps Fast Ethernet (IP Share ,etc)
- RS-232C Port for Command Line Interface
- High Performance LAN-to-LAN Routing Capability
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug & Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Managment
- Light and Compact Design with External Power Supply



# Hardware Specification

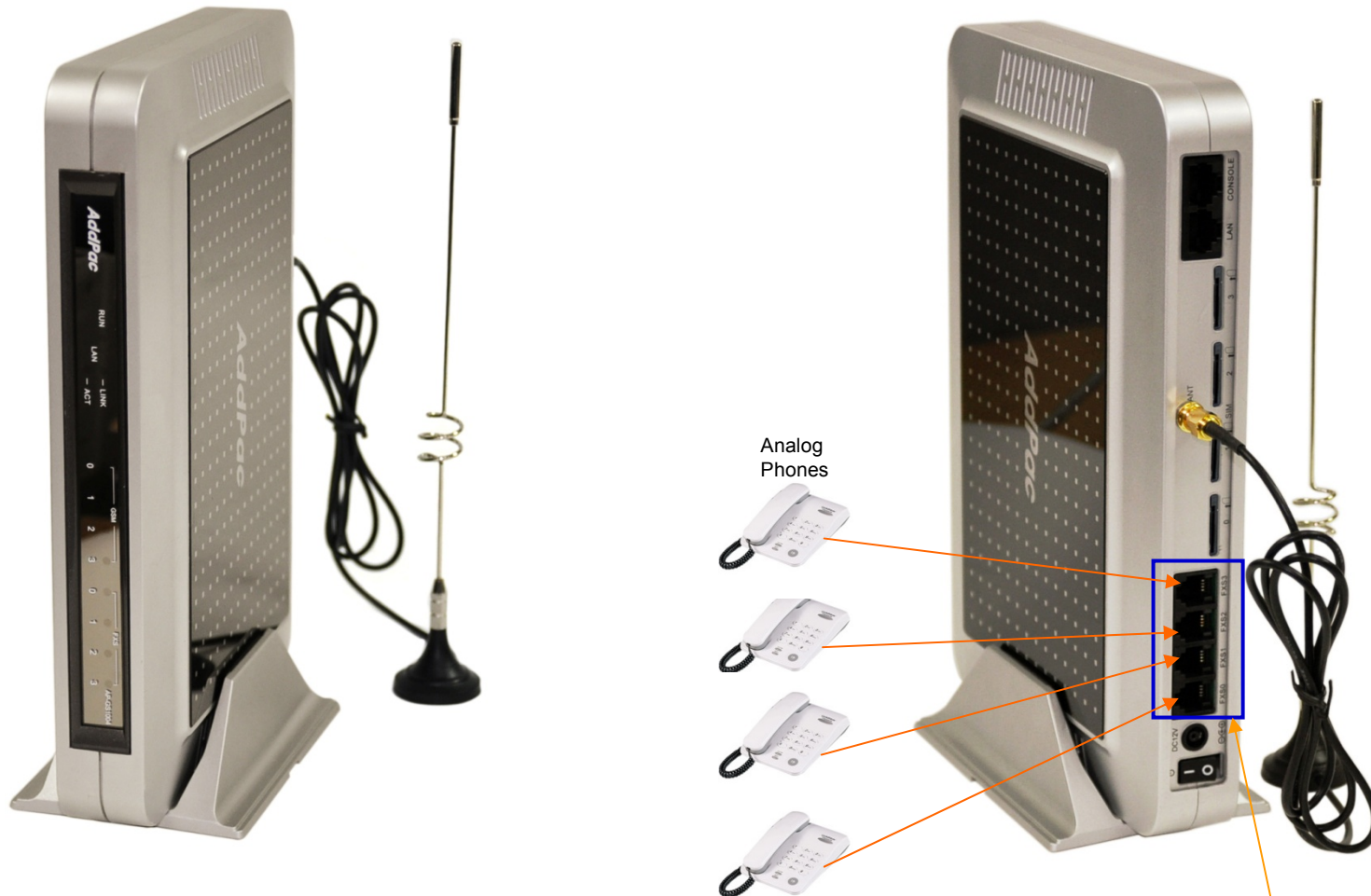
## AP-GS1004 Four(4) Port GSM Gateway

- RISC Microprocessor+DSP Computing Power
- 4-Port GSM Gateway
- 4-Port SIM Card Slot
- 1-Port GSM Antenna Interface(Internal 4-Port Antenna Combiner)
- VoIP Gateway Interface
  - AP-GS1004 Model A: Basic Configuration
  - AP-GS1004 Model B: Four(4) FXS Port
  - AP-GS1004 Model C: Four(4) FXO Port
- Network Interface for VoIP Direct Interface
  - One(1) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Port for CLI (RJ45)
- Run LED, LAN LED, Port LEDs
- External Power Supply



# Hardware Specification

## AP-GS1004 Four(4) Port GSM Gateway

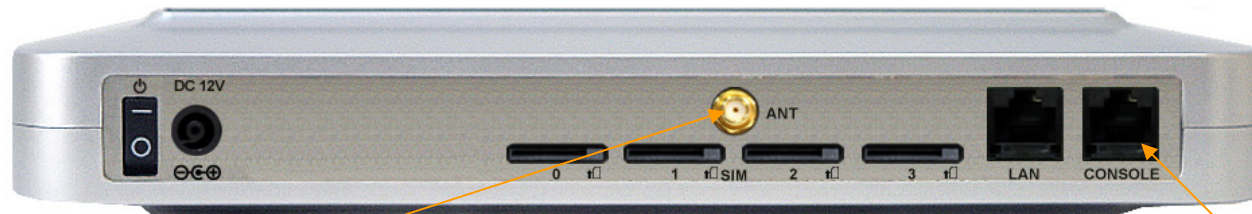


# Hardware Specification

## AP-GS1004 Four(4) Port GSM Gateway

### Back Side View

AP-GS1004 Model A



GSM Antenna Interface

RS232C Console Port

AP-GS1004 Model B



Power Switch

Power Input

4 FXS Port

SIM Card Slot

LAN0 10/100Mbps Ethernet



# AP-GS1500 GSM Gateway

# GSM Gateway

## AP-GS1500 Multi-Port GSM Gateway

- Two(2) Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 8-Port GSM, 4-Port GSM +8FXS/8FXO Module)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2)10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) & NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

# GSM Gateway

## AP-GS1500 Multi-Port GSM Gateway

- RISC Microprocessor Computing Power
- Two(2) Module Slot for GSM, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
  - 4-Port SIM Card Slot
  - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
  - 8-Port FXS Module (AP-N1-FXS8)
  - 8-Port FXO Module (AP-N1-FXO8)
  - 4-Port FXS & 4-Port FXO Module (AP-N1-FXS4O4)
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply



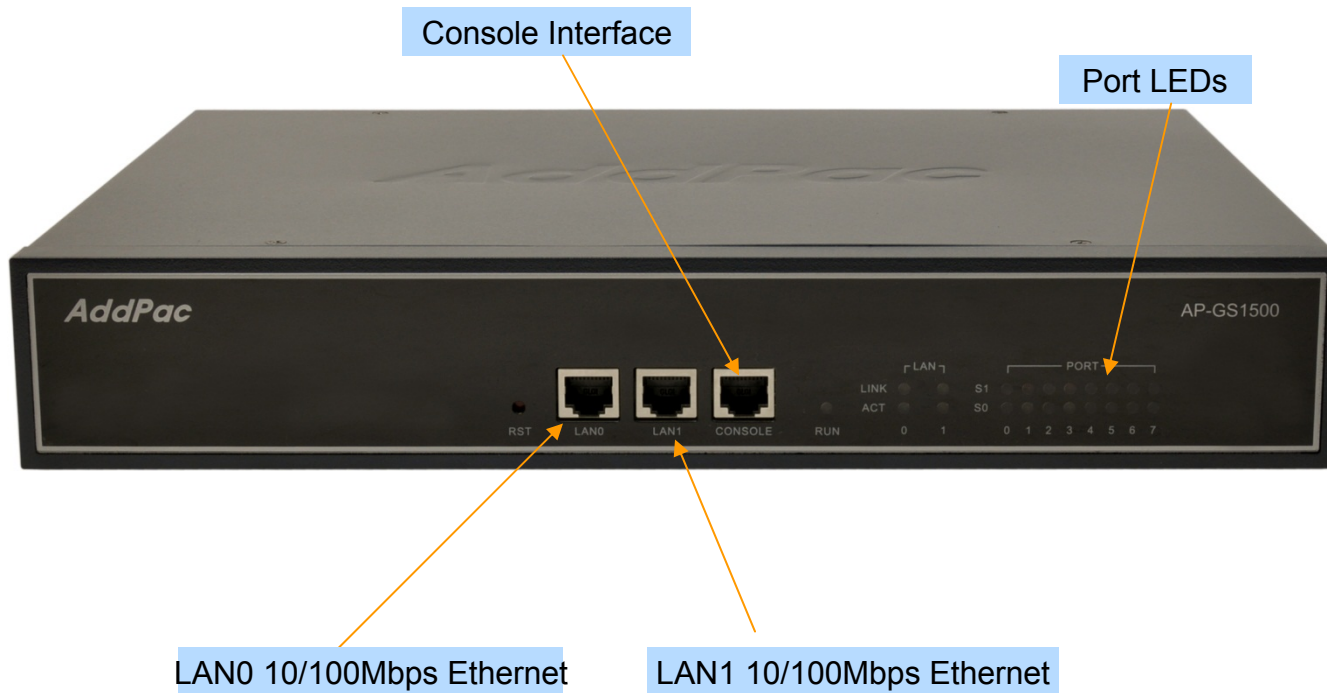
# Hardware Specification

AP-GS1500 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

## Front Side View



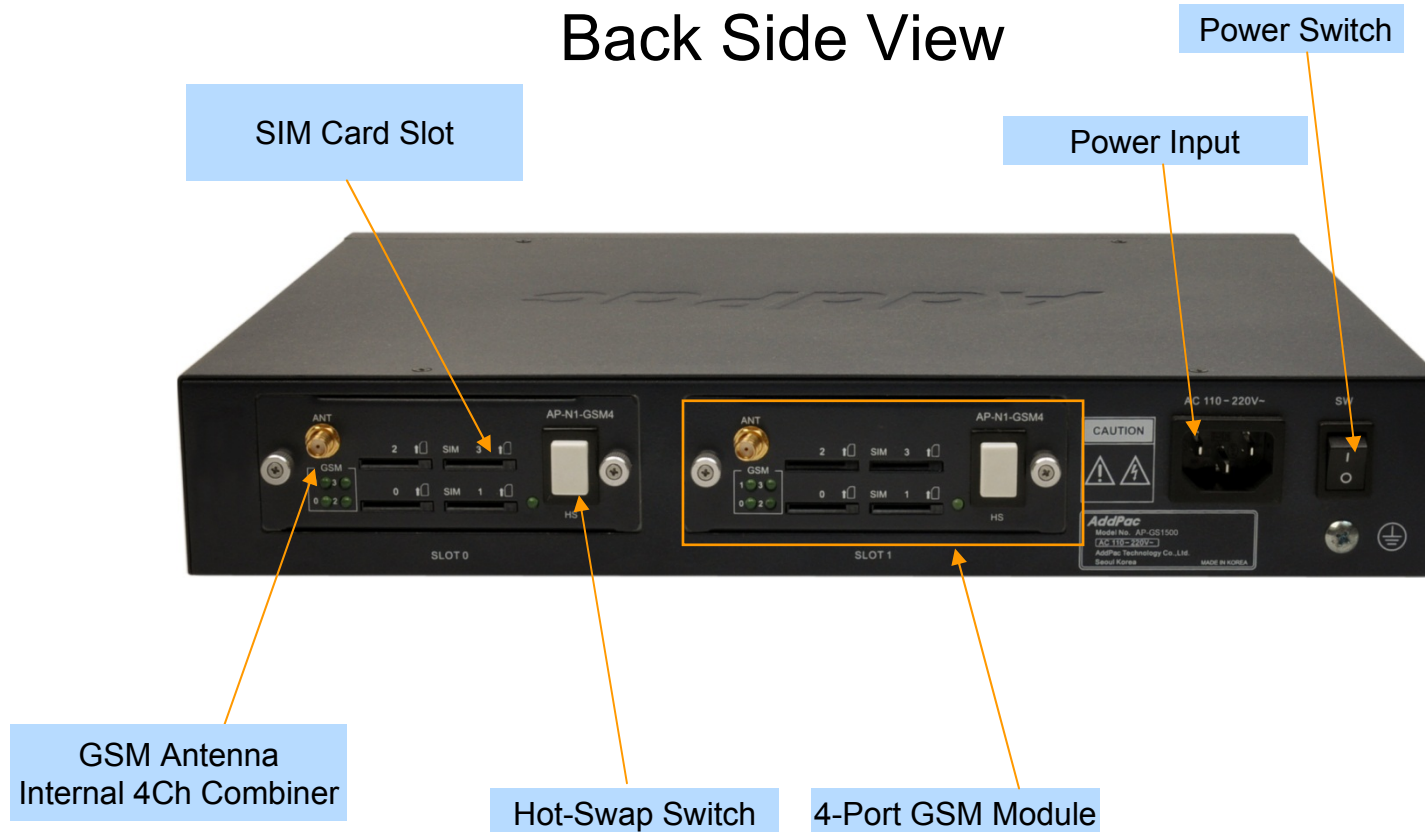
# Hardware Specification

AP-GS1500 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

## Back Side View





# Hardware Specification

AP-GS1500 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP



# Hardware Specification

## AP-GS1500 Multi-Port GSM Gateway

### AP-GS1500 Voice Modules

**AP-N1-GSM4** 4-Port GSM Module



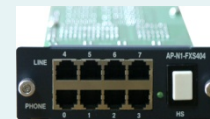
**AP-N1-FXS8** 8-Port FXS Module



**AP-N1-FXO8** 8-Port FXO Module



**AP-N1-FXS4O4** 4-Port FXS&4-Port FXO Module





# AP-GS2000 GSM Gateway

# Main Features

## AP-GS2000 Multi-Port GSM Gateway

- Three Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 8-Port GSM +8FXS/8FXO Module, 12-Port GSM)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2)10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

# Hardware Specification

## AP-GS2000 Multi-Port GSM Gateway

- RISC Microprocessor Computing Power
- Three Module Slot for GSM, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
  - 4-Port SIM Card Slot
  - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
  - 8-Port FXS Module (AP-N1-FXS8)
  - 8-Port FXO Module (AP-N1-FXO8)
  - Digital E1/T1 Module (AP-N1-E1)
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply

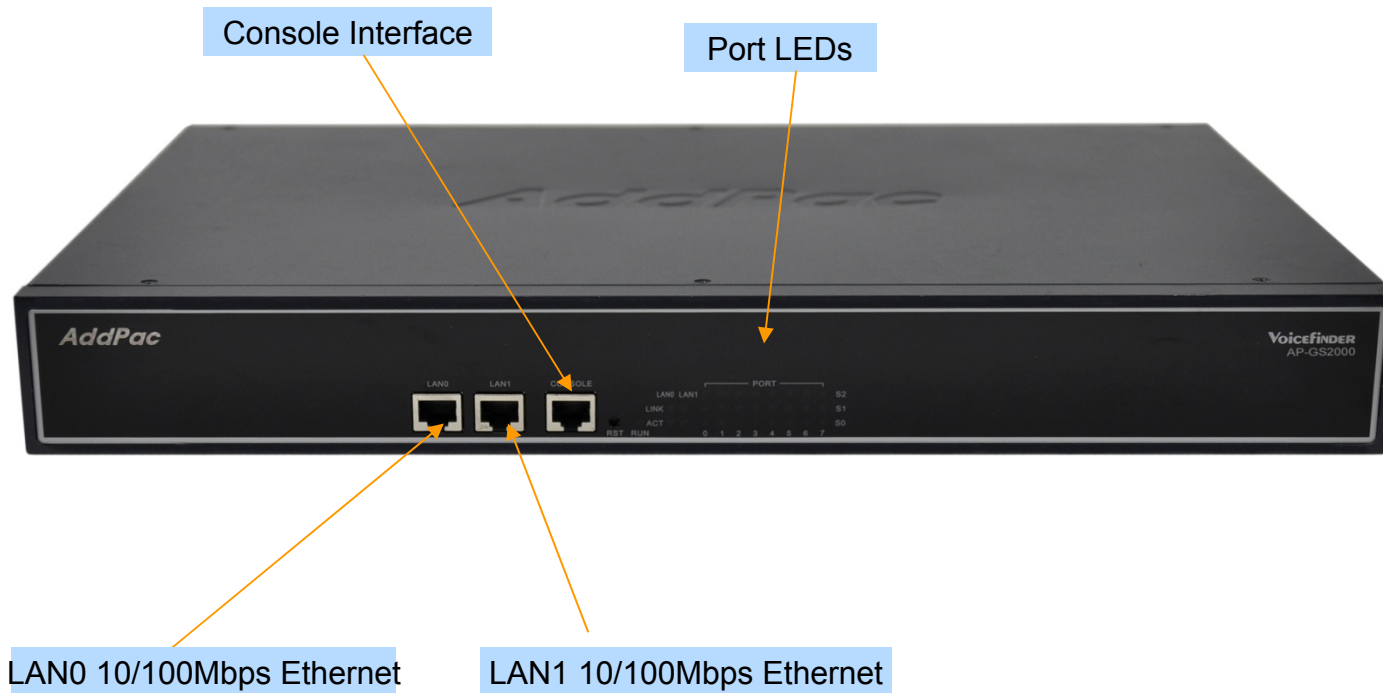


# Hardware Specification

## AP-GS2000 Multi-Port GSM Gateway

### Hardware Specification

#### Front Side View

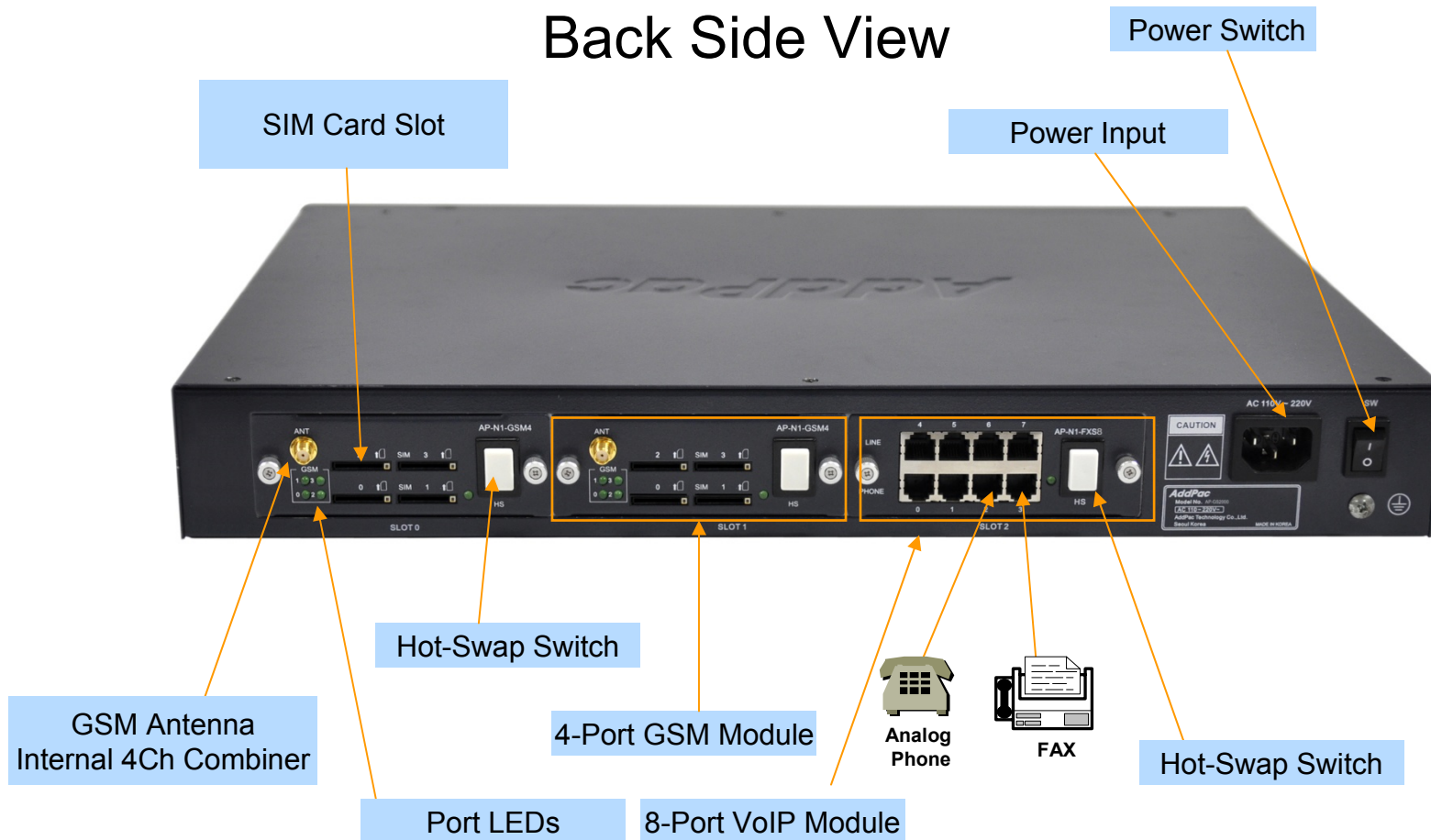


# Hardware Specification

## AP-GS2000 Multi-Port GSM Gateway

### Hardware Specification

#### Back Side View



# Hardware Specification

## AP-GS2000 Multi-Port GSM Gateway





# Hardware Specification

## AP-GS2000 Multi-Port GSM Gateway

### AP-GS2000 Voice Modules

**AP-N1-GSM4** 4-Port GSM Module



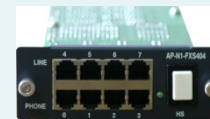
**AP-N1-FXS8** 8-Port FXS Module



**AP-N1-FXO8** 8-Port FXO Module



**AP-N1-FXS4O4** 4-Port FXS&4-Port FXO Module



**AP-N1-E1** 1-Port Digital E1/T1 Module





# AP-GS2500 GSM Gateway

# Main Features

## AP-GS2500 Multi-Port GSM Gateway

- Four(4) Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 12-Port GSM +8FXS/8FXO Module, 16-Port GSM)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2)10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) & NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

# Hardware Specification

## AP-GS2500 Multi-Port GSM Gateway

- RISC Microprocessor Computing Power
- Four(4) Module Slot for GSM, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
  - 4-Port SIM Card Slot
  - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
  - 8-Port FXS Module (AP-N1-FXS8)
  - 8-Port FXO Module (AP-N1-FXO8)
  - Digital E1/T1 Module (AP-N1-E1)
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply



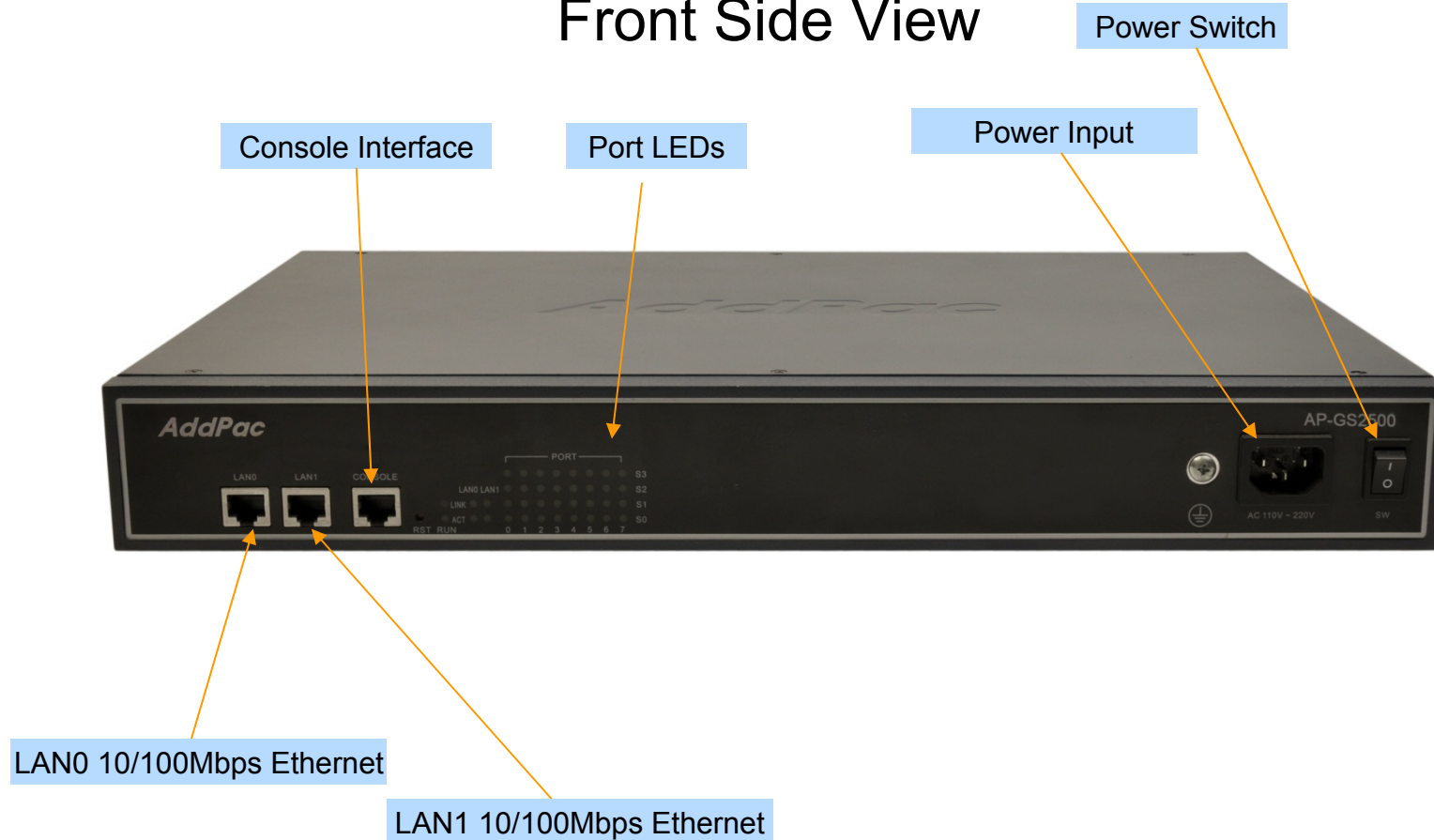
# Hardware Specification

AP-GS2500 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

## Front Side View



# Hardware Specification

AP-GS2500 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

## Back Side View (16-Port GSM)

SIM Card Slot



GSM Antenna  
Internal 4Ch Combiner

4-Port GSM Module

Hot-Swap Switch

# Hardware Specification

AP-GS2500 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

## Back Side View (12-Port GSM+ 8-Port FXS)



# Hardware Specification

AP-GS2500 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP










# Hardware Specification

## AP-GS2500 Multi-Port GSM Gateway

### AP-GS2500 Voice Modules

<b>AP-N1-GSM4</b> 4-Port GSM Module	
<b>AP-N1-FXS8</b> 8-Port FXS Module	
<b>AP-N1-FXO8</b> 8-Port FXO Module	
<b>AP-N1-FXS4O4</b> 4-Port FXS&4-Port FXO Module	
<b>AP-N1-E1</b> 1-Port Digital E1/T1 Module	



# AP-GS3000 GSM Gateway

# Main Features

## AP-GS3000 Multi-Port GSM Gateway

- Ten(10) Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 32-Port GSM, Digital E1/T1 Module, CPU Module)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2)10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) & NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

# Hardware Specification

## AP-GS3000 Multi-Port GSM Gateway

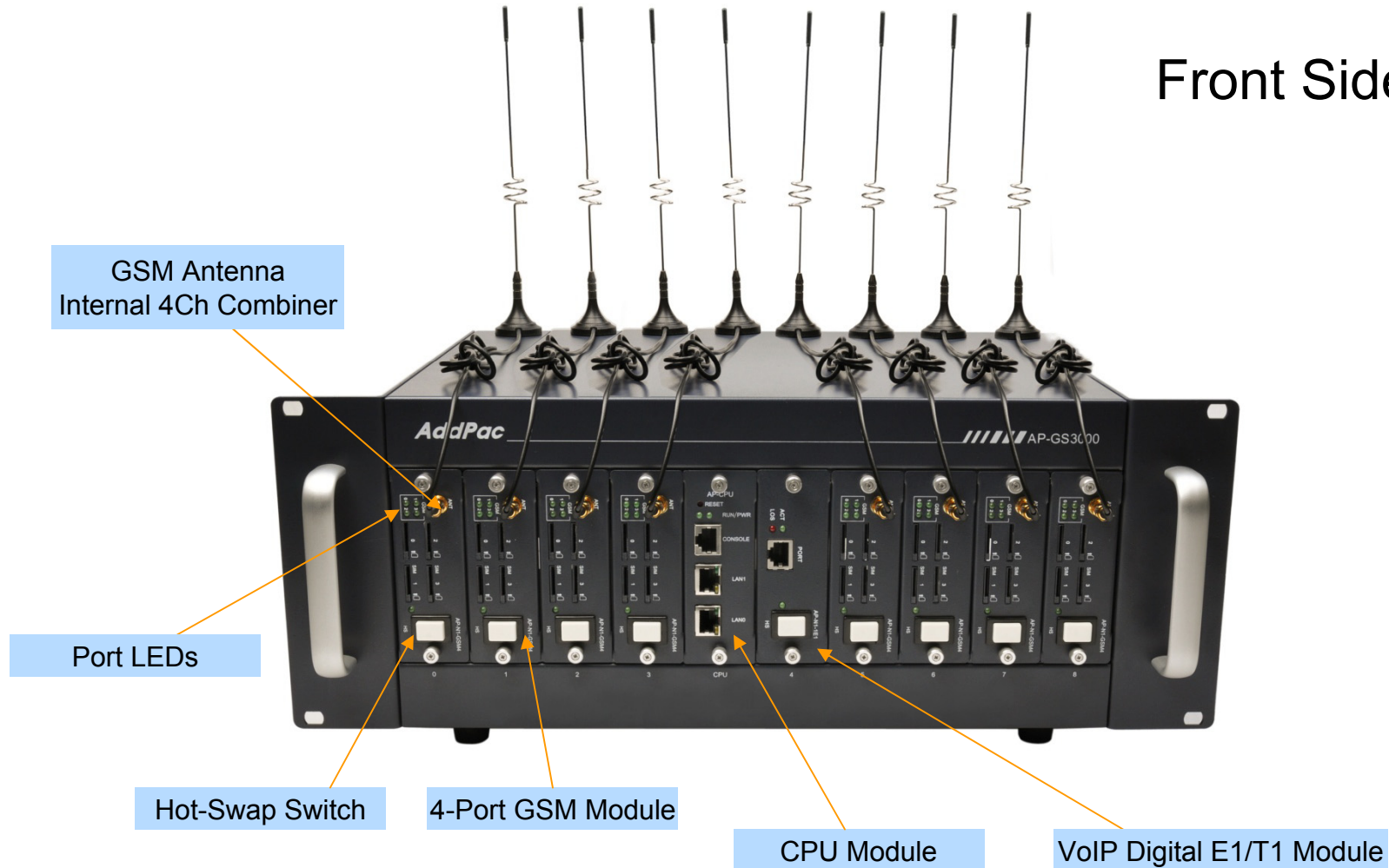
- RISC Microprocessor Computing Power
- Ten(10) Module Slot for GSM, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
  - 4-Port SIM Card Slot
  - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
  - 8-Port FXS Module (AP-N1-FXS8)
  - 8-Port FXO Module (AP-N1-FXO8)
  - Digital E1/T1 Module (AP-N1-E1)
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply



# Hardware Specification

## AP-GS3000 Multi-Port GSM Gateway

Front Side View



# Hardware Specification

## AP-GS3000 Multi-Port GSM Gateway



Back Side View

Cooling FAN

Power Switch

Power Inlet (110~220V)

# Hardware Specification

## AP-GS3000 Multi-Port GSM Gateway

### AP-GS3000 Voice Modules

**AP-N1-GSM4** 4-Port GSM Module



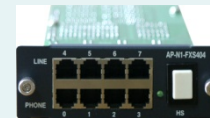
**AP-N1-FXS8** 8-Port FXS Module



**AP-N1-FXO8** 8-Port FXO Module



**AP-N1-FXS4O4** 4-Port FXS&4-Port FXO Module



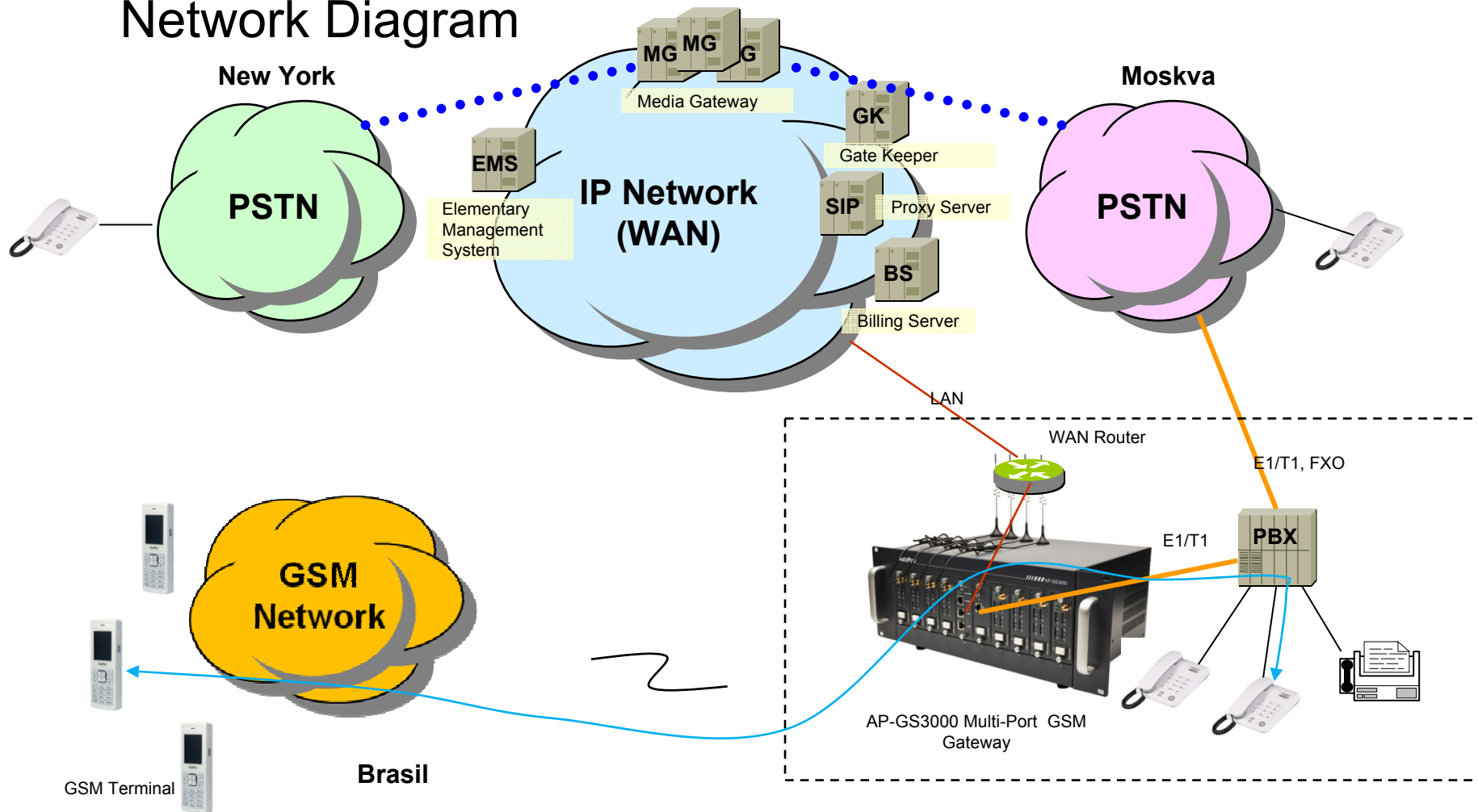
**AP-N1-E1** 1-Port Digital E1/T1 Module



# Network Service Diagram

## AP-GS3000 Multi-Port GSM Gateway

### Network Diagram





# AP-GS5000 GSM Gateway



# Main Features

## AP-GS5000 Multi-Port GSM Gateway

- Ten(10) Module Slots for 8-Port GSM Module, Digital 2E1 Interface (Up to 80-Port GSM, CPU Module)
- H.323/SIP Dual Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- 10/100/1000Mbps Gigabit Ethernet Interface
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- NMS(Network Management System) Support
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply
- Dual Redundancy Power Supply Architecture

# Hardware Specification

## AP-GS5000 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

- RISC Microprocessor Computing Power
- Ten(10) Module Slot for GSM, Analog /Digital VoIP Interface
- 8-Port GSM Module(AP-N1-GSM8)
  - 8-Port SIM Card Slot
  - Two(2) GSM Antenna Interface (Internal 4 Channel Antenna Combiner x 2)
  - Hot-Swap
- VoIP Interface Module (Hot-Swap)
  - 8-Port FXS Module (AP-N1-FXS8)
  - 8-Port FXO Module (AP-N1-FXO8)
  - Digital 2E1/T1 Module (AP-N1-2E1)
- Network Interface
  - Two(2) 10/100/1000Mbps Gigabit Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Module Type Power Supply, Dual Power Supply



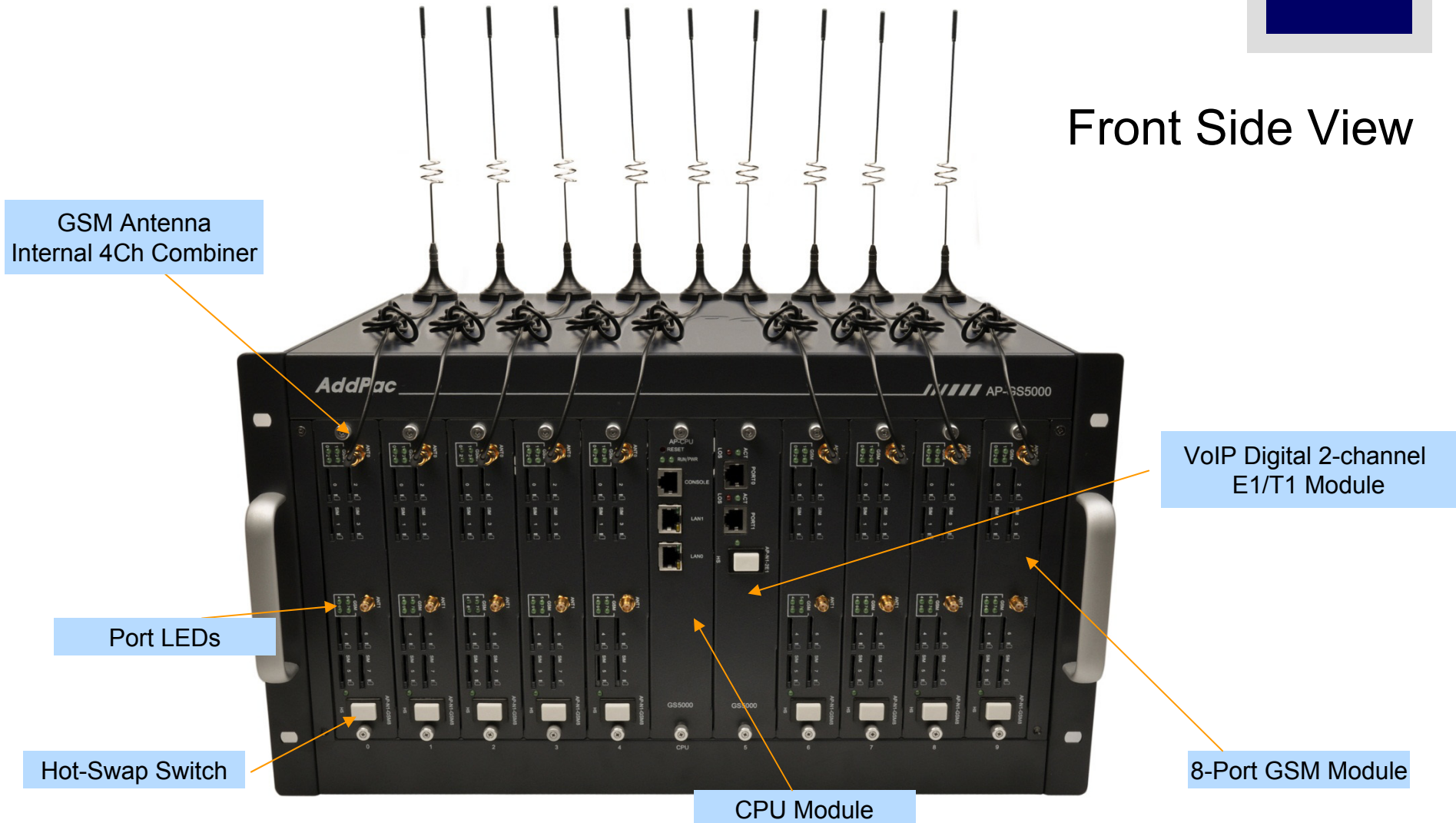
# Hardware Specification

AP-GS5000 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

Front Side View



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# Hardware Specification

AP-GS5000 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

Back Side View



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# Hardware Specification

AP-GS5000 Multi-Port GSM Gateway

RISC  
CPU

High-end  
DSP

## AP-GS5000 Voice Modules

**AP-N1-GSM8** 8-Port GSM Module



**AP-N1-FXS8** 8-Port FXS Module



**AP-N1-FXO8** 8-Port FXO Module



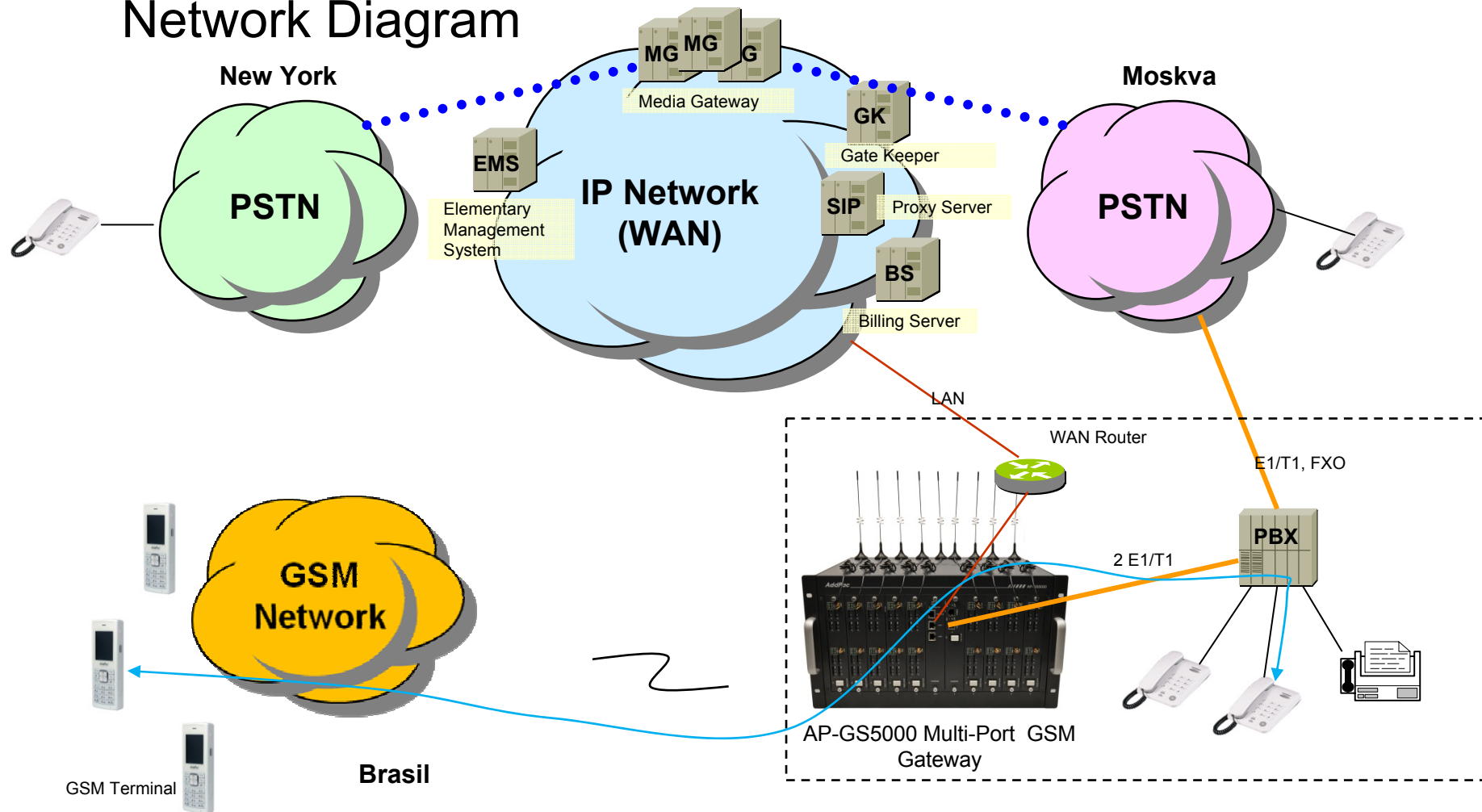
**AP-N1-2E1** 2-Port Digital E1/T1 Module



# Network Service Diagram

## AP-GS5000 Multi-Port GSM Gateway

### Network Diagram





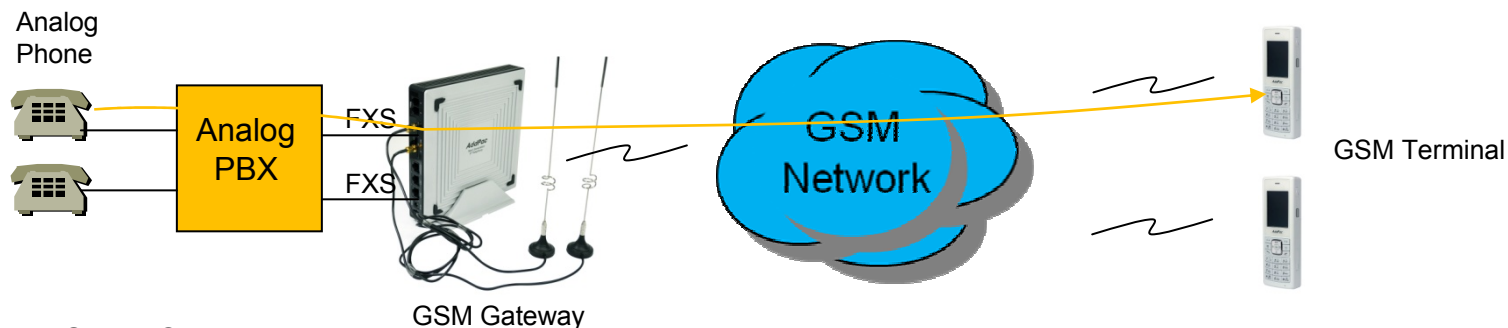
# GSM Gateway Function List



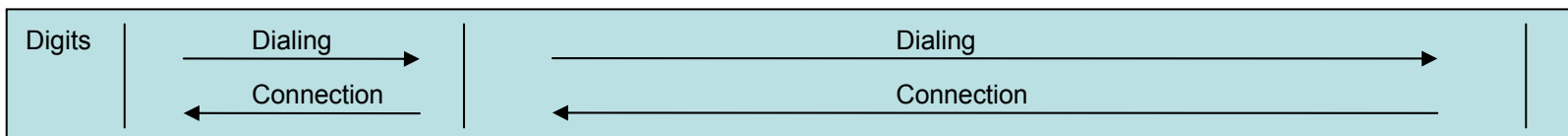
# Contents

- GSM Outbound Call
- GSM Inbound Call
- VoIP to GSM Outbound Call
- VoIP to GSM Inbound Call
- GSM Inbound Black / White list
- VoIP to GSM Black / White list
- WEB Callback Service
- Callback Service
- LCR(Least Cost Routing)
- BTS(Base Terminal Station) Control
- GSM BCCH Cell Monitoring
- GSM Messaging Service
- Radius Server Interoperability

# GSM Outbound Call



## One(1) Stage Call



## Two(2) Stage Call



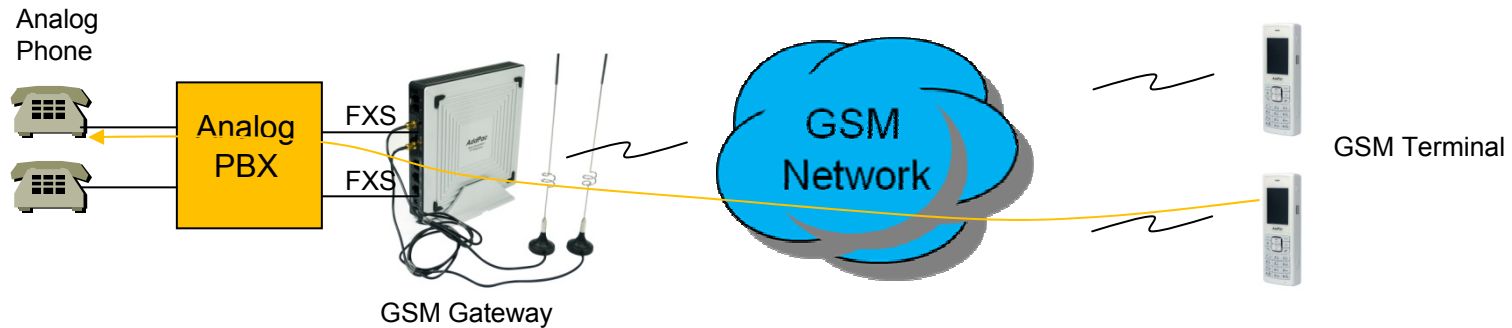
### Outbound Call (1 Stage)

: Making call to mobile phone from analog phone connected to FXS directly.

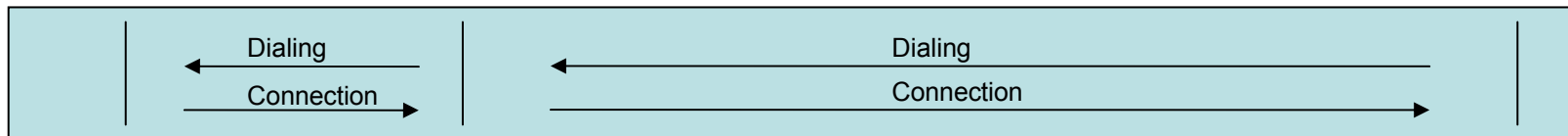
### Outbound Call (2 Stage)

: Making call to mobile phone from analog phone connected to FXS after hearing of 2<sup>nd</sup> dial tone from AddPac GSM Gateway

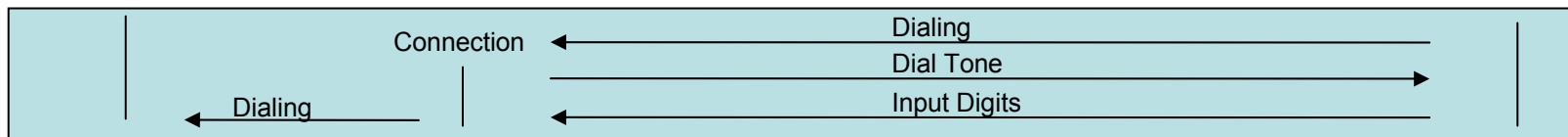
# GSM Inbound Call



## 1 Stage Call (Baby Call)



## 2 Stage Call



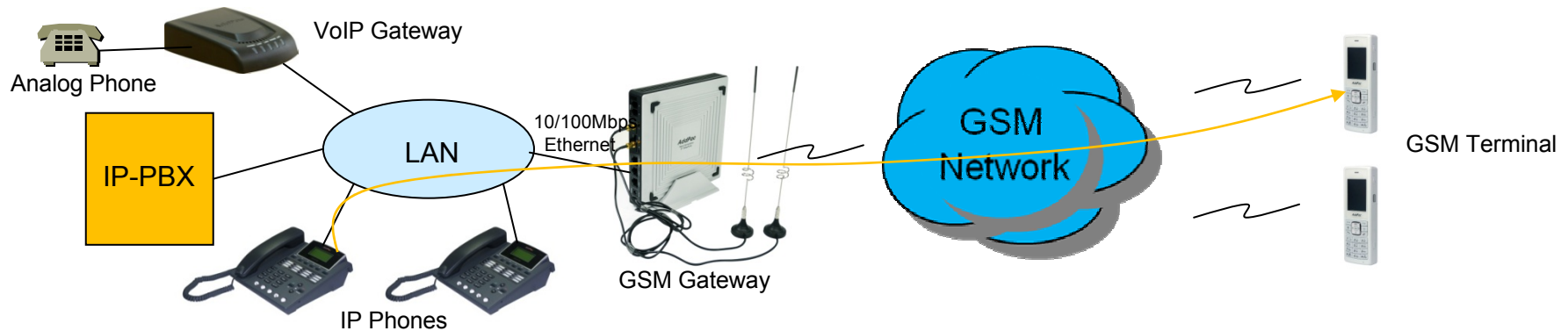
Inbound Call (1 Stage) – Baby Call

: Making call to analog phone connected to FXS directly

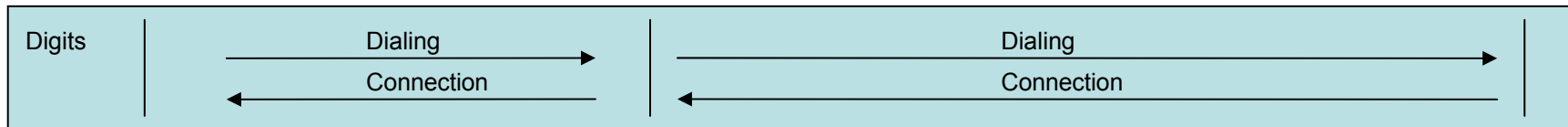
Inbound Call (2 Stage)

: Making call to analog phone connected to FXS after hearing of 2<sup>nd</sup> dial tone from AP-GS1002

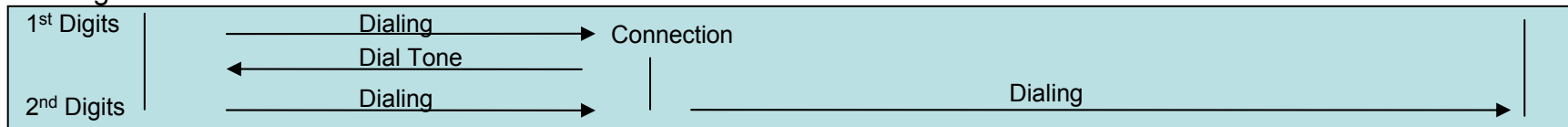
# VoIP to GSM Outbound Call



1 Stage Call



2 Stage Call



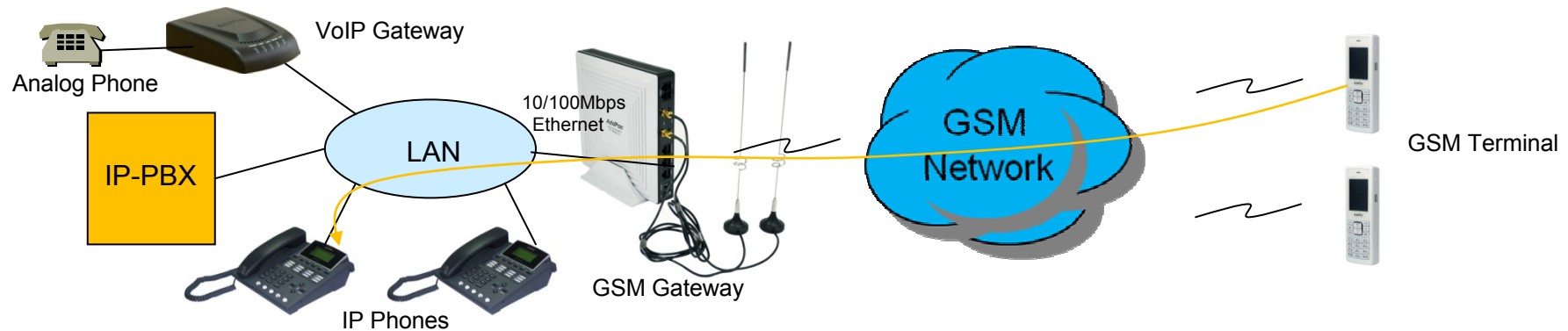
Outbound Call (1 Stage)

: Making call to mobile phone from analog phone connected to VoIP gateway or IP Phone directly

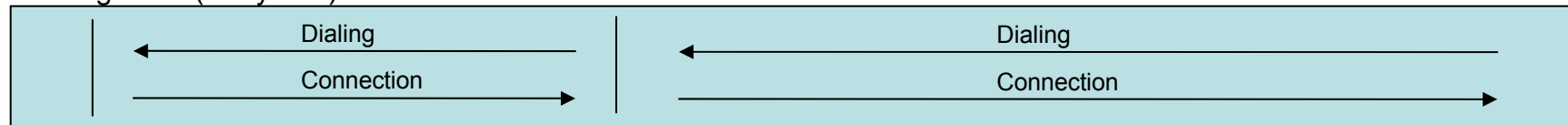
Outbound Call (2 Stage)

: Making call to mobile phone from analog phone connected to VoIP gateway after hearing of 2<sup>nd</sup> dial tone from GSM Gateway

# VoIP to GSM Inbound Call



## 1 Stage Call (Baby Call)



## 2 Stage Call



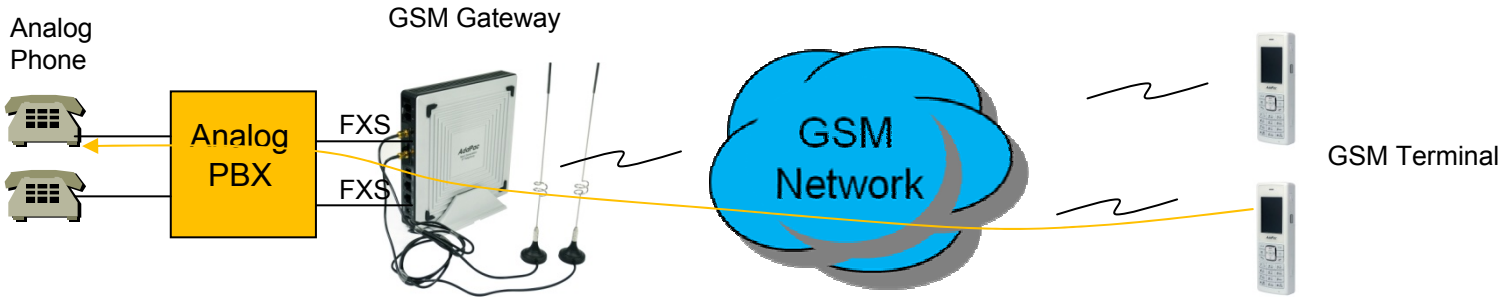
Inbound Call (1 Stage) – Baby Call

: Making call to IP phone in VoIP network directly.

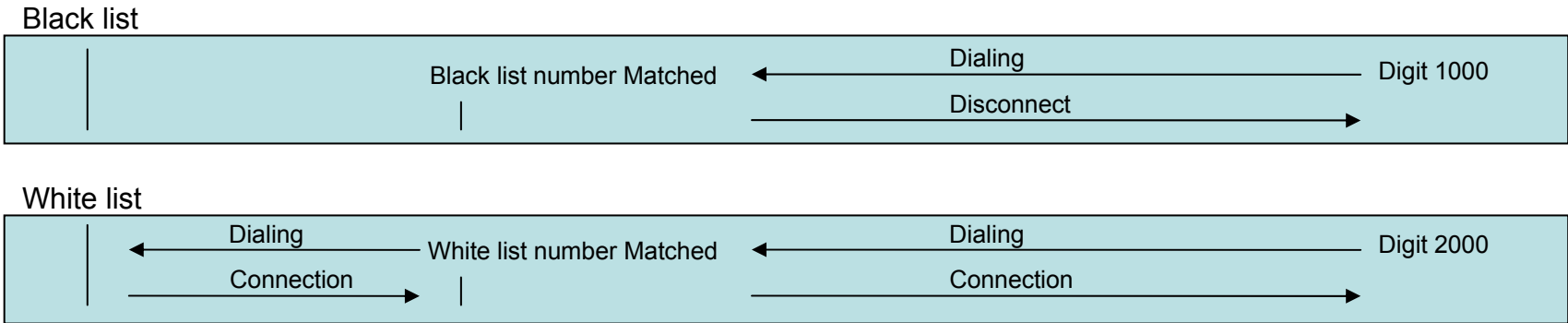
Inbound Call (2 Stage)

: Making call to IP phone in VoIP network after hearing of 2<sup>nd</sup> dial tone from GSM Gateway

# GSM Inbound Call Black / White list



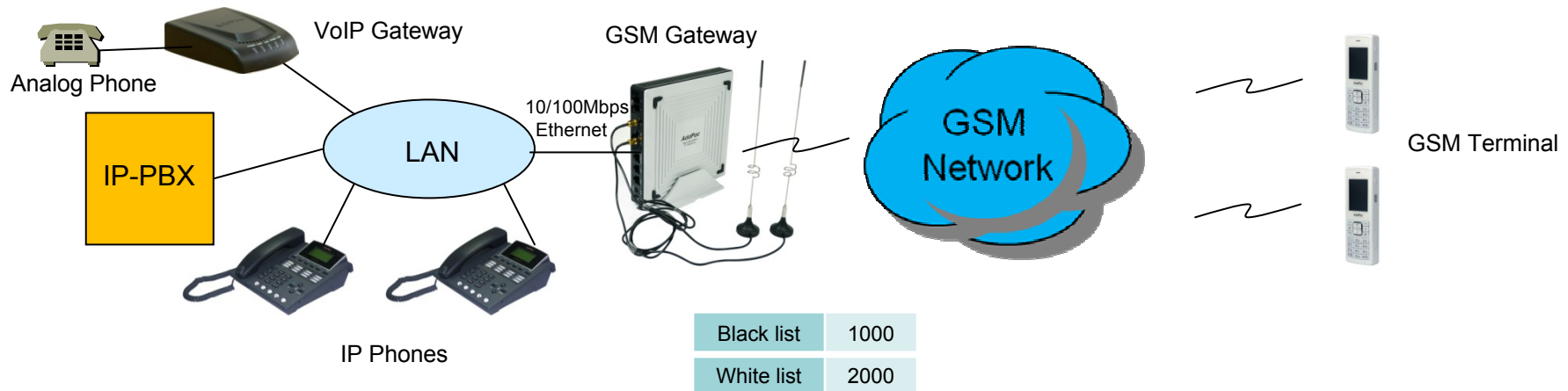
Black list	1000
White list	2000



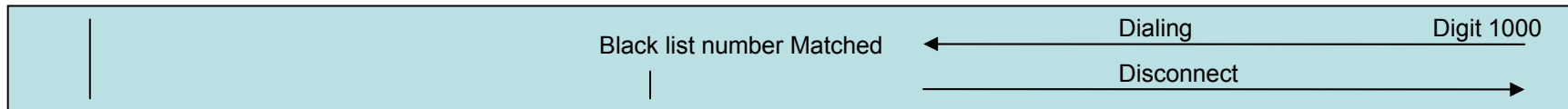
**Black list**  
: The number on black list is restricted to receive call.

**White list**  
: The only number on white list is allowed to receive call

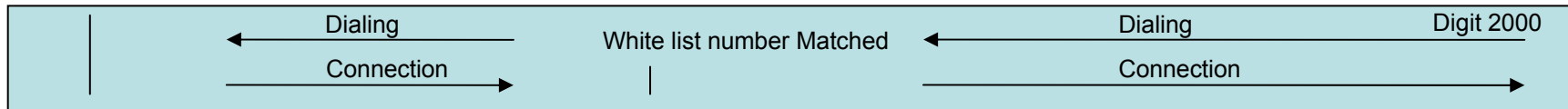
# VoIP to GSM Black / White list



## Black list



## White list



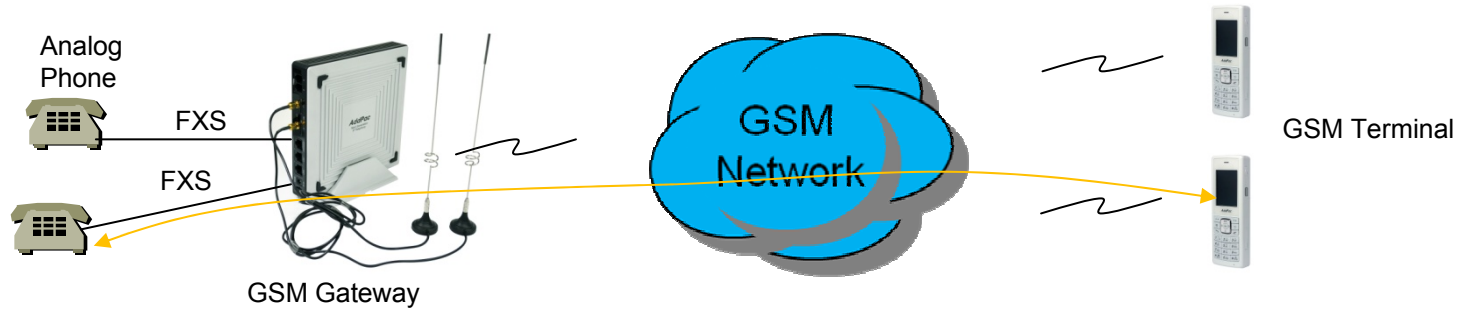
## Black list

: The number on black list is restricted to receive call.

## White list

: The only number on white list is allowed to receive call

# WEB Callback Service



Origination number(1000)

WEB Call back White list	1000
-----------------------------	------

Destination number(2000)

## WEB Callback Service

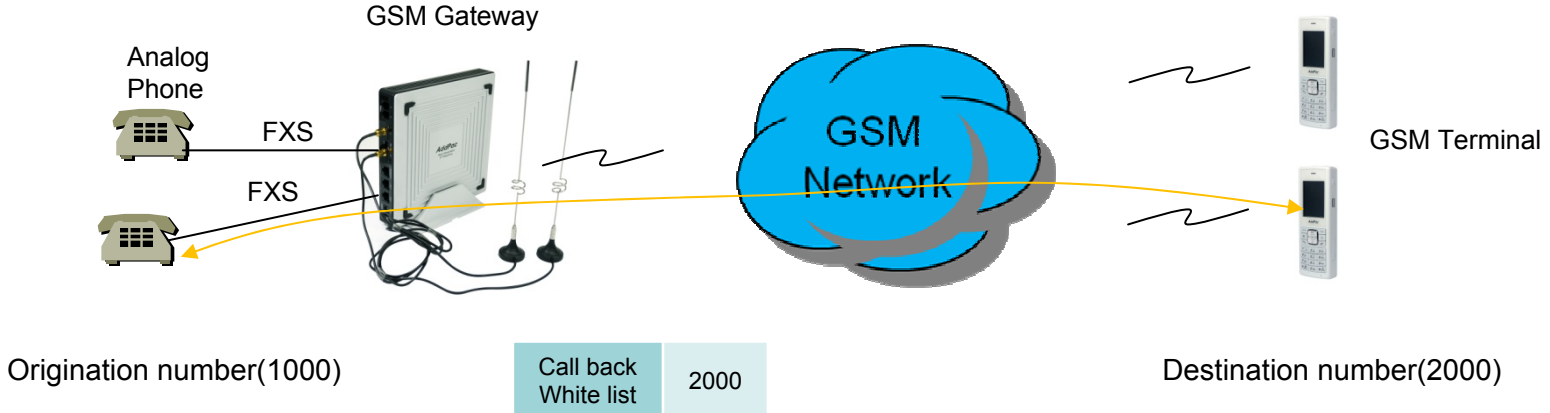


## WEB Callback Service

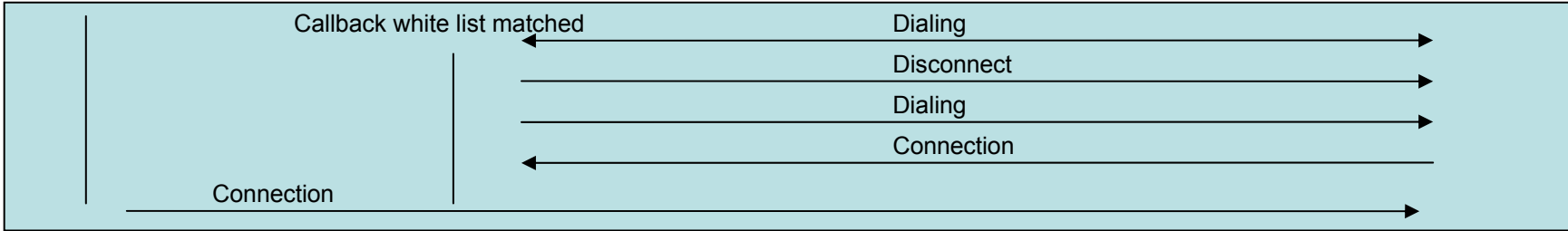
- : The remote call is made by user's control by WEB Interface.
- The WEB callback number on white list must be the same of source number.



# GSM Callback Service



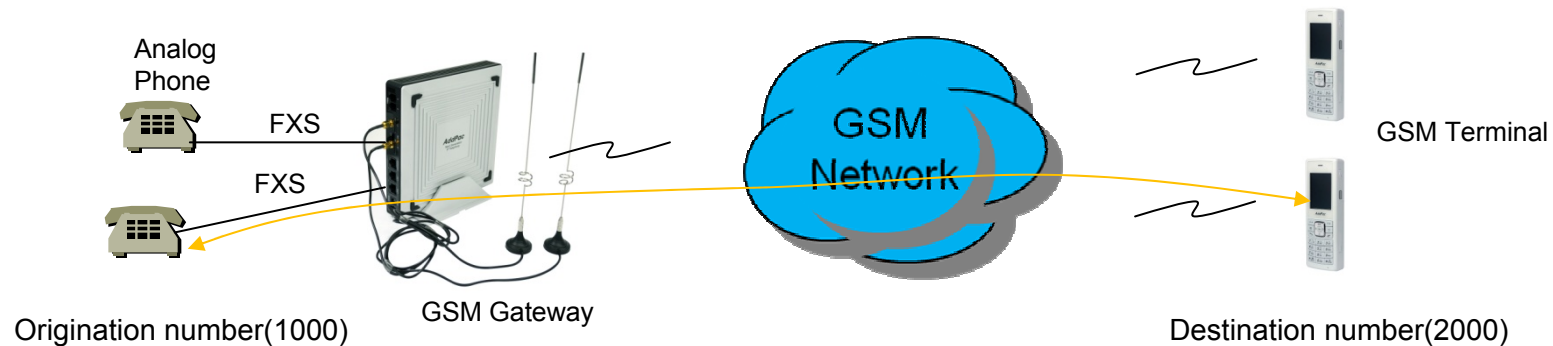
## GSM Callback Service



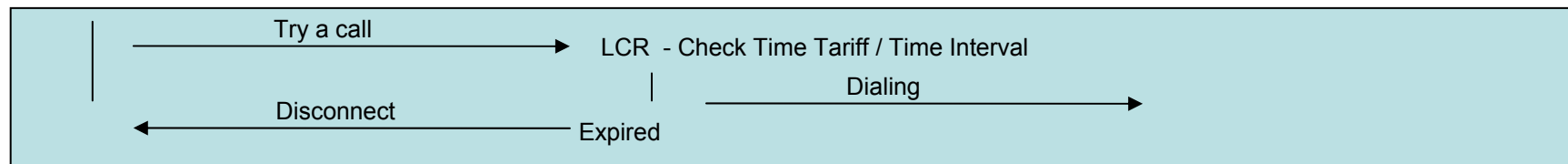
### GSM Callback Service

: When the user on the callback white list makes call, GSM Gateway disconnects it and makes call back to the user

# LCR(Least Cost Routing)



## LCR(Least Cost Routing)



### GSM LCR Time Interval

: The only registered user is allowed to use GSM call in the rule of date, week, and time

### GSM LCR Time Tariff

: User is able to check remained time, used time listed on LCR, etc

### GSM LCR Simulator

: GSM Gateway supports virtual call simulation used on WEB

# BTS(Base Terminal Station) Control

**Smart Web Manager**  
www.addpac.com

### GSM / BTS Control

Port	BTS Selection Mode	BCCH	RSSI & Timer
P0:0	Auto	72EA	-25B -1(sec)
P0:1	Auto	72EA	-25B -1(sec)

P0:0 [v] Auto [v] [ ] [-10 dB] [0 sec] [v]  
Apply

**BTS control**  
Configure BTS selection option  
\* Auto mode  
\* forced BCCH  
\* forced RSSI level

**Information**  
AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**  
Configure BTS selection mode

BTS(Base Terminal Station)

: User is able to choose Cell ID or RSSI of cell by GSM Gateway.

- (1)The most powerful signal of cell is chosen.
- (2)User selects BTS through Cell ID in cell.
- (3)The cell listed is found periodically by user

# GSM BCCH Information

Smart Web Manager  
www.addpac.com

**GSM BCCH Cell Information**

PORT 0:0

PORT 0:1

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Verify GSM wireless signal status

**BCCH Cell Information**  
Shows serving cell information ( center circle) and neighboring cell information.  
\* LAC : Location Area Code  
\* CI : Cell ID  
\* BSIC : Basic Station ID Code  
\* BCCH : Broadcast Control Channel  
\* RSSI : Receiver Signal Strength

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

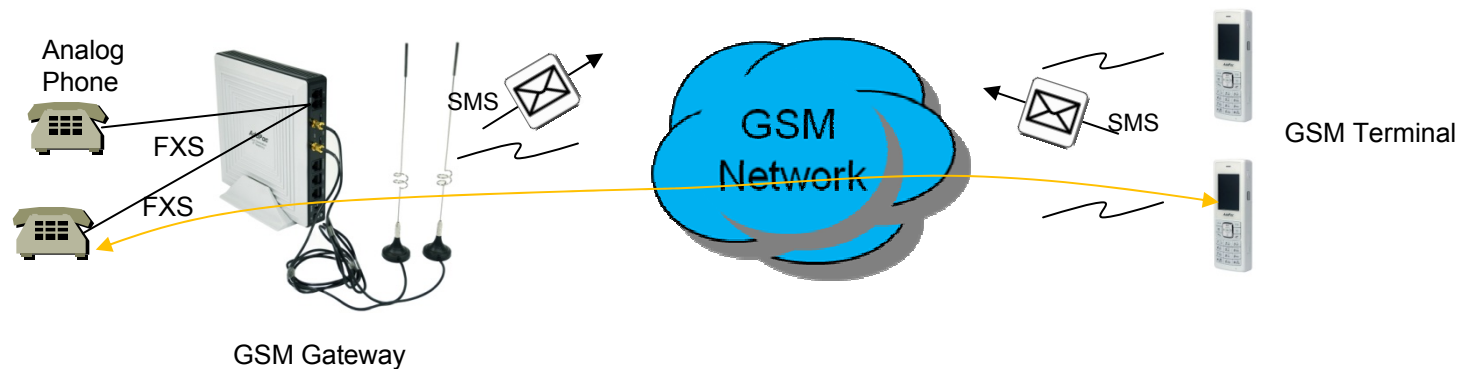
**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

# GSM Messaging Service



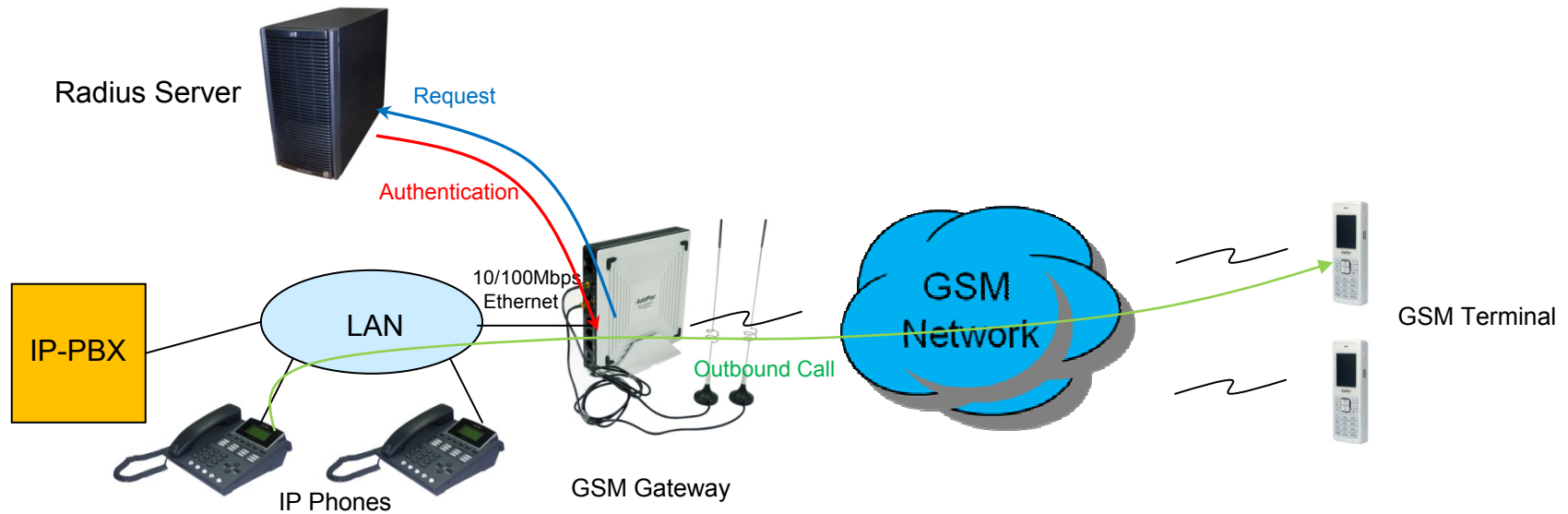
## GSM Messaging Service

- : SMS is able to send and receive by GSM Gateway's WEB Interface
- : English, Korean, Spanish, Russian, Portuguese

## USSD

- : In case of using Pre-paid SIM card, checking and recharging is allowed by GSM Gateway

# Radius Server Interoperability



Radius Server Interoperability

: When billing system is required, GSM gateway supports radius server interoperability



# Smart Web Manager for GSM Gateway

# Contents

- Main Page Layout
- System Configuration
  - Network Setup, Language, NAT, PPTP, NTP
- Basic Configuration
  - Protocol, SIP Server , FXS Extension, GSM Extension
  - DTMF/CODEC, VoIP Dial Plan, GSM Dial Plan, Static Routing, Hot Line
- Advanced Configuration
  - Gain/CID, GSM PINs, FAX, Service, Filtering, Security
  - GSM Web Callback, GSM Callback
- Miscellaneous Configuration
  - Call Status, System Status, Alarm Status, GSM Status
  - Call Log, System Log, Ping, BTS Selection, GSM BTS Info
- LCR(Least Cost Routing)
  - Black & White List, Time Interval, Tariff Group, LCR Test
- SMS
  - Inbox, SMS New Message



# Main Page Layout

**Main Menu**  
For easy system setup, provide the various menu and category

**Tool Bar**  
Provide frequently used tools like as System Update, Configuration Backup, Initialization, Restart, Telnet

**Information**  
Display the current system version and status summary

**Description**  
Display the help message if you move mouse over main menu

**Workspace**  
Workspace for detailed action

**System Information**

H/W Version	2.0
SW Version	8.00d
MAC Address	0002.a400.0000
VoIP Protocol	SIP
Voice Interface Module	G(2)S(2)
Registration Status	Registered
Supported Codec List	
Network Information	Static 172.16.9.16
WAN LINK Status	100Mbps FULL Duplex Link UP
LAN LINK Status	Link Down
Current Time	Fri Jan 1 01:49:57 2010
System Startup Time	Fri Jan 1 00:00:00 2010
	0 days 01:49:57
	0

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Registered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

# System – Network Setup

**Host Name**  
Create a representative name for the site to be installed

**Static IP**  
This is static IP mode. Specify the addressed IP from the service provider

**PPPoE**  
This is ADSL mode. This mode is used for addressing IP though authentication from the modem.  
At this time, the modem must be configured in a way that the device can be authenticated.

**DHCP**  
This is dynamic IP mode which is set at default. The IP can be addressed from the external DHCP server.

**VLAN**  
Configure VLAN mode and ID.

**WAN Link**  
Controls and recognizes WAN port  
Specify the connection speed of WAN port connection automatically.

**MAC**  
Change MAC address of WAN interface. Without address entry, use the basic MAC Address.

**Smart Web Manager**

## Network Setup

Hostname: GS1002

Static IP

IP Address: 172.16.9.16 A.B.C.D  
Network Mask: 255.255.0.0 A.B.C.D  
Default Router: 172.16.1.1 A.B.C.D  
DNS Server: Primary DNS Server  
Secondary DNS Server

PPPoE(ADSL)

Username:   
Password:

DHCP

VLAN ID: 0

Auto

Speed:  100  10  
Duplex:  full  half

WAN Link Control:  Manual

MAC(Hardware) Address: [ ][ ][ ][ ][ ][ ]

Apply

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Registered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

This command sets up WAN port. The static IP address is to be assigned to the WAN port. The static IP address of the device can be changed. MAC Address change can be used only when necessary. It is recommended to use the address created by the user not the address of the device

**UnRead SMS Messages**

# System - Language

**Smart Web Manager**  
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**System**

- Network Setup
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PIN

### Configure Language

한국어

English

Apply

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Registered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Choose the basic language to be applied. English is set at default.

**Configure Language**  
English, Korea

# System - NAT

**Smart Web Manager**  
www.addpac.com

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security

### NAT Static Table

IP Protocol	Global Port	Local Address	Local Port	Control
tcp	<input type="text"/>	<input type="text"/>	<input type="text"/>	Add

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

When many PCs are connected to LAN, create a table for delivering TCP/UDP port to PC.

**NAT Static Table**  
When many PCs are connected to LAN, create a table for delivering TCP/UDP port to PC

# System - PPTP

The screenshot shows the 'Smart Web Manager' interface for configuring PPTP. The main content area is titled 'Tunneling' and contains three sections: 'Mode', 'Source & Destination', and 'Service'. Three yellow callout boxes provide additional context:

- Tunneling Mode:** Configure Tunneling mode. This points to the 'Mode' section where 'None(Disable Tunneling, default)' is selected.
- Tunneling source & destination:** Source LAN port & destination IP. This points to the 'Source' dropdown (set to 'FastEthernet0/0') and the 'Destination' text input field.
- Tunneling Service:** Service mode. This points to the 'Service' section where 'Voice and Data Use Tunnel Interface (default)' is selected.

The 'Information' sidebar on the right provides system details:

- AddPac Technology
- Model : GS1002\_G2
- H/W Version : 2.0
- S/W Version : 8.00d
- Smart Web Version : 0.4
- Smart Web Build : Mar 24 2010
- Voice Interface : G(2)S(2)
- Protocol : SIP
- Status : Unregistered
- CurrentCalls : 0 Call
- Network : Static 172.16.9.16
- Mac Address : 0002.a400.0000
- Unread Message : P0:0(0), P0:1(0)

# System - NTP

**System**

- Network Setup
- Language
- NAT
- PPTP
- **NTP**

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route

## NTP

Enable  Disable

Primary Server  (Domain Name or IP Address)

Secondary Server  (Domain Name or IP Address)

Interval  (1~72 hours)

Hours Offset  :  (-23~23 hours) : (0~60 minute)

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

**NTP**  
Configure NTP server (s) & Options

# Basic - Protocol

Smart Web Manager  
www.addpac.com

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- **Protocol**
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**Protocol**

SIP(Session Initiation Protocol)

Apply

**Configure VoIP signaling protocol SIP , H.323 (optional)**

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Configure the settings of the protocol to be used for VoIP communication

# Basic – SIP Server

**Smart Web Manager**  
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**SIP (Session Initiation Protocol)**

Use SIP Server  Yes  No

Primary SIP Server   Server address (IP or Domain Name) and Port (default 5060)

Secondary SIP Server   Server address (IP or Domain Name) and Port (default 5060)

Local Domain name  (SIP userpart of authentication)

SIP Signaling Port  (default 5060, between 1 to 65535)

Register Expiration  (in seconds, default 60, between 10 to 86400)

Session Re-Fresh  INVITE  UPDATE

Session Expire Time  (in seconds, default 1800, between 30 to 86400, 0 = disable)

Apply

**SIP Server**  
Primary & Secondary server,  
Local domain name,  
SIP Signaling Port ( **reboot necessary** )  
Timer  
\* register expire  
\* session refresh  
\* session expire

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Configure the settings for SIP.  
Contact your service provider  
for the settings



# Basic – FXS Extension

**Smart Web Manager**  
www.addpac.com

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- **FXS Extension**
- GSM Extension

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**FXS Extension**

**Port Information**

Port	P0	P1	P2	P3
SLOT0	GSM	GSM	FXS	FXS

**FXS Extension Configuration**

Index	Port	Numbers	Preference	HuntStop	Select
0	0/2	1234	0	0	<input type="checkbox"/>

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Set up for using FXS port to extension number (forwarding No)

**Port Information**  
voice port type & physical port

**FXS Extension**  
Configure phone-number for using inter-office Preference ( 0 : highest )

# Basic – GSM Extension

**Smart Web Manager**  
www.addpac.com

**System**

- Network Setup
- Language
- NAT
- PPTP

**System**

- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension**

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**GSM Extension**

**Port Information**

Port	P0	P1	P2	P3
SLOT0	GSM	GSM	FXS	FXS

**GSM Extension Configuration**

Index	Port	Numbers	Preference	HuntStop	Select
0	0/0	T	0	X	<input type="checkbox"/>

**GSM Extension with Translation**

Port	Destination Pattern	Digits to Insert	Number of Digits to Delete
P0:0	33	8	1
P0:1			0

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Set up for using GSM port to extension number (forwarding No)

**Port Information**  
voice port type & physical port

**GSM Extension**  
Configure GSM phone-number for receiving a call (usually 'T' is used for each port)

**GSM Extension with Translation**  
Used to GSM callback

- The Received CID is not real serving number.
- The specified translation rule is applied.

# Basic – DTMF/CODEC

**Smart Web Manager**  
www.addpac.com

**System**

- Network Setup
- Language

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- **DTMF/CODEC**
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

### DTMF/CODEC

**Voice CODEC**

Preference 1	None
Preference 2	None
Preference 3	None
Preference 4	None
Preference 5	None
Preference 6	None

**DTMF Relay mode**

- DTMF relay by In-band voice
- DTMF relay by RTP payload defined by RFC 2833
- DTMF relay by Out-of-band signal
- DTMF relay by Cisco out-of-band signal

**CODEC**  
Configure voice codec preference  
(g711a, g711u, g729, g7231, g726)

**DTMF**  
Configure DTMF relay method  
(in-band, RFC2833, out-of-band, CISCO type out-of-band)

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Configure the settings for GSM Dial Plan and Prefix table

# Basic – VoIP Dial Plan

## VoIP PLAN

Configure translation rule for VOIP Peer.  
 - first, 'Number of Digits to Delete' option is applied.

- second, 'Digits to Insert' option is applied.

(ex) Origin called Number = 123456  
 Number of Digits to Delete = 2  
 Digits to Insert = "88"

-----  
 result = 883456

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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**VoIP Dial Plan / Prefix**

**Plan Table**

Index	Digits to Insert	Number of Digits to Delete	Digit Pattern	Control
0	2	0	T	<input type="checkbox"/>

**Prefix Table**

Index	Prefix	PlanIndex	Control
0	T	2	<input type="checkbox"/>

**Information**

AddPac Technology  
 Model : GS1002\_G2  
 H/W Version : 2.0  
 S/W Version : 8.00d  
 Smart Web Version : 0.4  
 Smart Web Build : Mar 24 2010  
 Voice Interface  
 G(2)S(2)  
 Protocol : SIP  
 Status : Unregistered  
 CurrentCalls: 0 Call  
 Network : Static 172.16.9.16  
 Mac Address: 0002.a400.0000  
 Unread Message:  
 P0:0(0)  
 P0:1(0)

**Description**

Configure the settings for the outbound call of main/remote and incoming E1 and routing

## Prefix Table

Configure VoIP Peer with translation rule.  
 ( Serviced by SIP SERVER)

# Basic – GSM Dial Plan

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Port Information**  
voice port type & physical port

Port	P0	P1	P2	P3
SLOT0	GSM	GSM	FXS	FXS

**Plan Table**

Index	Digits to Insert	Number of Digits to Delete	Digit Pattern	Control
0	1	1	2T	<input type="checkbox"/>

**Prefix Table**

Index	Prefix	2nd Prefix	PlanIndex	Slot/Port	Control
0	33	2T	0	0/0	<input type="checkbox"/>

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Hot Line Setup

**Miscellaneous**

- WEB Callback
- GSM Callback
- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**VoIP PLAN**  
Configure translation rule for GSM Peer.  
- first, 'Number of Digits to Delete' option is applied.  
- second, 'Digits to Insert' option is applied.  
  
(ex) Origin called Number = 123456  
Number of Digits to Delete = 2  
Digits to Insert = "88"  
-----  
result = 883456

**Prefix Table**  
Configure GSM Peer with translation rule.

# Basic – Static Route

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- **Static Route**
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

### Static Route

Set Remote Site Call(5-digit number is set to begin \*2->\*2...)

No	Remote Site IP	Prefix	Insert Digit	Delete Digit	Name of Remote Site	Answer Addr	Control
0	172.16.1.1	2...	172.16.9.16	0	Factory	T	<input type="checkbox"/>
*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

**Static Route**  
Configure Static VoIP Peer for using Inter-Office .  
( Already, I know IP & phone-number )

# Basic – Hot Line

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**Hot Line**

**Hot Line Configuration**

Port	Hot Line Number	Digit Input Timeout <0~10 sec>
S0P0(G)	<input type="text"/>	<input type="text" value="n.a."/>
S0P1(G)	<input type="text"/>	<input type="text" value="n.a."/>
S0P2(S)	<input type="text" value="8888"/>	<input type="text" value="5"/>
S0P3(S)	<input type="text"/>	<input type="text"/>

Apply

**Hot Line**  
- Used as baby-call(Connection PLAR)  
- Timer ( FXS port only : No Digit event is occurred for configured timer value, Auto-Dialing will be started )

**Information**  
AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

# Advanced – Gain & CID

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID**
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM RTS Info

**Gain**

Port	Port Type	InputGain	OutputGain	Caller ID
P0:0	GSM	0	0	<input checked="" type="checkbox"/>
P0:1	GSM	0	0	<input checked="" type="checkbox"/>
P0:2	FXS	0	0	<input checked="" type="checkbox"/>
P0:3	FXS	0	0	<input checked="" type="checkbox"/>

Apply

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Adjust the input voice volume from FXS/FXO/E1/E&M to DSP and the output volume from DSP to the phone or PSTN line;

**Gain & CID**  
Configure Input-gain, output-gain and caller-ID.



# Advanced – GSM PINs

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**GSM PINs**

**PINs**

Port	PIN for SIM card
P0:0	<input type="text"/>
P0:1	<input type="text"/>

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Configure GSM PINs

**GSM PIN**  
Configure GSM PIN(Personal Identification Number)

# Advanced - Fax

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- **Fax**
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**Fax**

**Fax Mode**  T.38  Inband T.38  Bypass

**Fax Rate**  Disable  2400  4800  7200  9600  12000  14400

Apply

**FAX**  
Configure fax mode & rate (VoIP Lines)

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Enable or disable T.38/Inband T.38, which is fax internet protocol and specify Baudrate

# Advanced - Service

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- **Service**
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**Service**

**Applicaton Services**

- Enable Telnet Server Port  (default 23, 1-65535)
- Enable HTTP Server Port  (default 80, 1-65535)
- Enable FTP Control Port  (default 21, 1-65535)  
Data Port  (default 20, 1-65535)
- Enable Syslog Primary Server  Port  (default 514)  
Secondary Server  Port  (default 514)  
Log Level   
Log Command

**Timer**

- Inter Digit Time  sec (default 3, 1-600)

**Call Service**

- Transfer  Hook-Flash  Not-assigned
- Hold  Hook-Flash  Not-assigned

**SIP Transfer**

- Mode  blind  Attended

Apply

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Enable or disable Telnet, HTTP, FTP and specify the access port and Call Hold/Transfer and Timer .

**Service**

- Configure application service(Telnet, HTTP, ftp, syslog)
- Configure IDT(Inter Digit Time)
- Configure Call-Transfer-Mode & Hook-Flash-Usage-Type.
- Configure Call-Transfer-Mode.

# Advanced - Filtering

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- **Filtering**
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**Filter**

**FTP Filter**

Network Addr	Network Mask	Control
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

**HTTP Filter**

Network Addr	Network Mask	Control
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

**Telnet Filter**

Network Addr	Network Mask	Control
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

For FTP, HTTP, Telnet, set up one IP or IP band for allowing access

**Filter**  
Configure application service filter with IP & Subnet mask.

# Advanced - Security

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- **Security**
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**Security**

IP Filtering  Enable  Disable

WarDialing Filtering  Enable  Disable

Allow Digit Length(IP to PSTN) Min  Max

SIP Shutdown  Enable  Disable

Apply

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Configure the settings for IP authentication and protocol and incoming number

**Security**

- IP Filtering : Allowing only the inbound call which is registered to Call-Routing of the server by static IP.
- WarDialing : Allowing only the inbound call with the number registered to Inter-Office and phone-number.
- Digit Length : Allowing only the inbound call with the number registered to Inter-Office and phone-number
- SIP : SIP signaling packets are filtered.

# Advanced – GSM Web Callback

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**GSM WEB Callback**

**Calling Number Whitelist**

index	DialPattern	Control
0	01023234444	<input type="checkbox"/>

0 [ ] [Delete] [Add]

**WEB Callback**

Destination Numbers: 8888 Source Numbers: 9999 [Apply]

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Execute GSM call service function and Configure call service whitelist

**Calling Number White List**  
The employee working at the out of office are usually registered.

**WEB Callback**  
The employee working at the out of office can use web call agent.

**Status Viewer**  
Display real-time call staus.

• WEB Callback  
• GSM Callback

# Advanced – GSM Callback

**GSM Callback**  
 The employee working at the out of office can use this function.

- The Call received from GSM network is automatically disconnected.
- GSM gateway calls to the calling number.

**Calling Number White List**  
 The employee working at the out of office are usually registered.

**Callback**  
 The white list group is adapted to specific GSM port

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**GSM Callback**

**Calling Number Whitelist**

Group	Index	DialPattern	Control
3	0	123T	<input type="checkbox"/>

3 | 0 | [ ] | [Delete] | [Add]

**Callback**

GSM Port	My Number	WhiteList Group
P0:0		3
P0:1		N.A.

[Apply]

**Information**

AddPac Technology  
 Model : GS1002\_G2  
 HW Version : 2.0  
 SW Version : 8.00d  
 Smart Web Version : 0.4  
 Smart Web Build : Mar 24 2010  
 Voice Interface  
 G(2)S(2)  
 Protocol : SIP  
 Status : Unregistered  
 CurrentCalls : 0 Call  
 Network : Static 172.16.9.16  
 Mac Address : 0002.a400.0000  
 Unread Message:  
 P0:0(0)  
 P0:1(0)

**Description**

Execute GSM callback function and Configure callback whitelist

# Miscellaneous – Call Status

**Smart Web Manager**  
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**System**

- Network Setup
- Language
- NAT
- DTMF

**Call Status**

**Port Status (Analog)**

Slot	Port Group				
	Port	0()	1()	2()	3()
SLOT 0	Status	I	I	I	I
	Select	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="button" value="Unblock"/> <input type="button" value="Block"/>				

Connection State :  (Connected)  (Disconnected || Blocked)

Call State :  (Idle)  (Ring || Dial)  (Called)  (Calling)  (Blocked)

**Call Status**

Port	Direction	Established Time	Calling Number	Called Number	CODEC	Src/Dest. IP

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Verify port status and retrieve the present call information

**DTMF/CODEC**

- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Security**

- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- **Call Status**
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**Analog Port**  
Real-time display about analog port status (occupation, call status). Provide a specific port blocking function

**Active Call Status**  
Real-time display about current active call status (calling party addr, called party addr. Codec, etc)



# Miscellaneous – System Status

**System Status**

- voice port status & information
- SIP-UA status & information
- gateway status & information
- system utilization information

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**System Status**

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Advanced**

- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line
- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- **System Status**
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010

Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Verify the present port information, Server Register status, CPU and Memory usage

**Voice Port**

Port	LineType	Status	InGain	OutGain	TieType	TieDigits	CallNum	Tcalled	Tcalling
0/ 0	GSM	Idle	0	0	none		-1	-1	-1
0/ 1	GSM	Idle	0	0	none		-1	-1	-1
0/ 2	FXS	Idle	0	0	hot-line	8888	-1	-1	-1
0/ 3	FXS	Idle	0	0	none		-1	-1	-1

**SIP-UA**

Proxyserver Registration Information  
proxyserver registration option = e164  
Proxyserver list :

Server address	Port	Priority	Domain	Status (LastFailReason)
172.17.116.215	5060	128	any	Failed(Rx:OtherMsg)

Proxy Server registration status :

E.164	UserName	Password	Port	Status
1005	1005	NONE	0/ 2	Registered
33	33	NONE	0/ 0	Failed

SIP UA Timer counters  
retry counter = 10

SIP UA Timer values  
tretry (sip retry timer) = 500 msec.  
tinterval (sip retry max interval timer) = 4 sec.  
treg (sip register timer) = 60 sec.  
tregtry (sip register retry timer) = 20 sec.  
texpires (sip invite expire timer) = 180 sec.  
tsipping (sip ping timer) = 45 sec.

SIP UA Session Timer value  
Min-SE = 1800 sec.  
Session-Expires = 1800 sec.

SIP DNS SRV Query : Disable  
SIP Call Transfer Mode : Basic  
SIP Media Channel Start Mode : Default  
SIP Reliable Provisional Response Option : Supported with value <100rel>  
SIP Response Option : default  
SIP Local Domain : NULL  
SIP Special Char : NULL  
SIP Routing Method of Incoming Call : Default  
SIP Remote-Party-ID : Disabled

# Miscellaneous – Alarm Status

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**Alarm Status**

Interface Down Counter = 0  
H323 Register Fail Counter = 0  
SIP Register Fail Counter = 0

Clear

**Alarm Status**

- Interface Down count
- H323 register fail counter
- SIP register fail counter

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Verify the physical failure of LAN, H.323 / SIP Register Fail by increasing counter

# Miscellaneous – GSM Status

**Smart Web Manager**  
www.addpac.com

## GSM Status

**GSM Port Status & Information**

Port	My Phone Number	Device Information		Accounting (Used/Quota/Free)	
		Register Status	Signal Strength	Voice Quota(secs)	SMS Quota(E.A.)
P0:0		REG	0dB	0 / 36000 / 36000	0 / 300 / 300
P0:1		REG	0dB	0 / -1 / -1	0 / -1 / -1

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010

**Voice Interface**  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Display GSM wireless status

**GSM Status**

- my number
- GSM register status
- GSM signal strength
- Account information
  - \* voice quota ( used / quota / free )
  - \* SMS quota ( used / quota / free )

# Miscellaneous – Call Log

Smart Web Manager  
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP

Registration

- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping

## Call Log

CallNum	EventTime	Descript	CallingPartyNum	CalledPartyNum	RemoteInfo	SetupTime	Dur	Reason
< 1>	Jan 1 02:49:50	local	8888	9999	:		0	Local:CallClear

**Call Log**  
Show call history information

- \* call number
- \* event time
- \* description
- \* calling number
- \* called number
- \* remote IP information
- \* call setup time
- \* call duration
- \* call clear reason

# Miscellaneous – System Log

**Smart Web Manager**  
www.addpac.com

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- **System Log**
- Ping
- BTS Selection
- GSM BTS Info

**System Log**

command logging buffers (messages logged)  
-----  
event logging buffers (messages logged)  
-----

**System Log**  
- command log  
- system alarm log ( ex : interface down)

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Retrieve the system log

# Miscellaneous - Ping

**Smart Web Manager**  
www.addpac.com

**System**

- Network Setup
- Language
- NAT

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- [Alarm Status](#)
- GSM Status
- Call Log
- System Log
- **Ping**
- BTS Selection
- GSM BTS Info

**Ping**

Host address  Start

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Verify the physical failure of LAN, H.323 / SIP Register Fail by increasing counter

**PING**  
You can diagnose network status by PING.

**PING**  
Show real time ping status.

# Miscellaneous – BTS Selection

**Smart Web Manager**  
www.addpac.com

**GSM / BTS Control**

Port	BTS Selection Mode	BCCH	RSSI & Timer
P0:0	Auto	72EA	-25B -1(sec)
P0:1	Auto	72EA	-25B -1(sec)

**BTS control**  
Configure BTS selection option  
\* Auto mode  
\* forced BCCH  
\* forced RSSI level

**Information**  
AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**  
Configure BTS selection mode

# Miscellaneous – GSM BTS Info

Smart Web Manager  
www.addpac.com

**GSM BCCH Cell Information**

PORT 0:0

PORT 0:1

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Verify GSM wireless signal status

**BCCH Cell Information**  
Shows serving cell information ( center circle) and neighboring cell information.  
\* LAC : Location Area Code  
\* CI : Cell ID  
\* BSIC : Basic Station ID Code  
\* BCCH : Broadcast Control Channel  
\* RSSI : Receiver Signal Strength

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info



# LCR – Black & White List

**Smart Web Manager**  
www.addpac.com

**GSM LCR / Black List & White List**

**BlackList**

Index	DialPattern	Control
0	888T	<input type="checkbox"/>
		Delete
0	<input type="text"/>	Add

**WhiteList**

Index	DialPattern	Control
0	2...	<input type="checkbox"/>
		Delete
0	<input type="text"/>	Apply

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Configure black & white list

**LCR Black & White List**  
Black List : The patterns are disallowed GSM outbound call.  
White List : The patterns are allowed GSM outbound call.

# LCR – Time Interval

The screenshot displays the 'Smart Web Manager' interface for configuring GSM LCR / Time Interval Groups. The main content area is titled 'GSM LCR / Time Interval Group' and contains a 'TimeInterval' section. This section features a table with the following data:

Group	Days	StartTime(hh:mm)	EndTime(hh:mm)	Control
0	Weekdays	00:00	23:59	<input type="checkbox"/>

Below the table, there are input fields for adding a new group: a dropdown for 'Group' (set to 0), a dropdown for 'Days' (set to 'weekend'), two dropdowns for 'StartTime' (set to 0:00), and two dropdowns for 'EndTime' (set to 0:00). There are 'Delete' and 'Add' buttons.

A yellow callout box points to the table with the text: **Time Interval**  
GSM outbound call is restricted by Time Interval

The right sidebar contains 'Information' and 'Description' sections. The 'Information' section lists system details: AddPac Technology, Model: GS1002\_G2, HW Version: 2.0, SW Version: 8.00d, Smart Web Version: 0.4, Smart Web Build: Mar 24 2010, Voice Interface: G(2)S(2), Protocol: SIP, Status: Unregistered, CurrentCalls: 0 Call, Network: Static 172.16.9.16, Mac Address: 0002.a400.0000, Unread Message: P0:0(0), P0:1(0). The 'Description' section contains the text: 'Configure time interval group'.

# LCR – Tariff Group

**Smart Web Manager**  
www.addpac.com

**GSM LCR / Tariff Group**

**Tariff Group**

Group	Time Group	Restore Call Limit		Accounting Period		Free Quota		Control
Type	RestoreDay	First(sec)	Others(sec)	Voice(min)	SMS(E.A.)			
0	0	monthly	15	30	10	600	300	<input type="checkbox"/>
0	0	daily	1					Delete Add

**TariffPort**

Port	TariffGroup
P0:0	0
P0:1	N.A.
P0:2	N.A.
P0:3	N.A.

**Information**

AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Configure tariff group

**Time Interval Group**  
Time interval Group is adapted to this tariff group.

**Restore call limit**  
Quota restore time

**Accounting Period**  
Used to voice call.  
(ex)  
- configured as First (30 seconds ) Others(10 seconds )  
  
first connect -- 30 seconds are accounted.  
after 30 seconds -- 10 seconds are additionally accounted.  
after 10 seconds – 10 seconds are additionally accounted.  
and so on.

**Tariff Group**  
Tariff group is adapted to specific GSM port.

**Free quota**  
Free quota information.  
Current Usage information is supported at GSM Status.

# LCR – LCR Test

**Smart Web Manager**  
www.addpac.com

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**LCR Test**

Caller:

Called Number:

```
< 1> LCR : =====
< 2> LCR : == GSM LCR(Least Cost Route) Simulator Start ==
< 3> LCR : =====
< 4> LCR : -- src digits : 8888(GSM) -> dst digits : 9999(GSM)
< 5> LCR : -- MatchAllProcess After Sorted
< 6> LCR : <0> id(3048) dest(T) prefer(0) selected(0)
< 7> LCR : -- Trying : <0> id(3048) dest(T)
< 8> LCR : -- Error: Outbound White Group(id:1) UnMatched
< 9> LCR : -----
< 10> LCR : -- Result : Fail
< 11> LCR : =====
< 12> LCR : == GSM LCR(Least Cost Route) Simulator End ==
< 13> LCR : =====
```

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

LCR Test

**LCR Test**  
LCR simulator

**LCR Test**  
Show real time simulation status.

# SMS – Inbox

**Smart Web Manager**  
www.addpac.com

**GSM SMS / InBox**

number of messages are 0 P0:0 OK

Index	Sender	Received	Message	Select
-------	--------	----------	---------	--------

< > Delete

**GSM SMS / In Box**

- total message
- unread messages (Blue color)
- received time
- content

**Information**

AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls: 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

# SMS – SMS New Message

The screenshot shows the 'Smart Web Manager' interface for sending an SMS message. The main content area is titled 'GSM SMS / New Message'. It contains a form with the following fields:

- Phone Number:
- Message:
- Port:

Below the form is a 'Send' button. A red dashed box highlights the form fields. A yellow callout box with a black border contains the text: 'New Message send a new message to the other GSM mobile phone.' An arrow points from this callout box to the form area. Above the form, it says 'Max size is 80 characters'.

The left sidebar contains a navigation menu with the following categories:

- System
  - Network Setup
  - Language
  - NAT
  - PPTP
  - NTP
- Basic
  - Protocol
  - Server SIP
  - SIP Registration
  - FXS Extension
  - GSM Extension
  - DTMF/CODEC
  - VoIP Dial Plan
  - GSM Dial Plan
  - Static Route
  - Hot Line
- Advanced
  - Gain & CID
  - GSM PINs
  - Fax
  - Service
  - Filtering
  - Security
  - SNMP
  - WEB Callback
  - GSM Callback
- Miscellaneous
  - Call Status
  - System Status
  - Alarm Status
  - GSM Status
  - Call Log
  - System Log
  - Ping
  - BTS Selection
  - GSM BTS Info

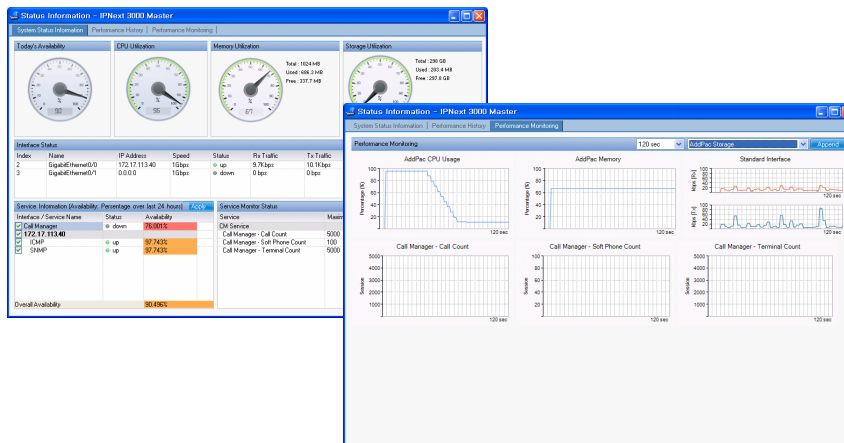
The right sidebar contains an 'Information' section with the following details:

- AddPac Technology
- Model: GS1002\_G2
- HW Version: 2.0
- SW Version: 8.00d
- Smart Web Version: 0.4
- Smart Web Build: Mar 24 2010
- Voice Interface
  - G(2)S(2)
- Protocol: SIP
- Status: Unregistered
- CurrentCalls: 0 Call
- Network: Static 172.16.9.16
- Mac Address: 0002.a400.0000
- Unread Message:
  - P0:0(0)
  - P0:1(0)

Below the information section is a 'Description' section with a text area.

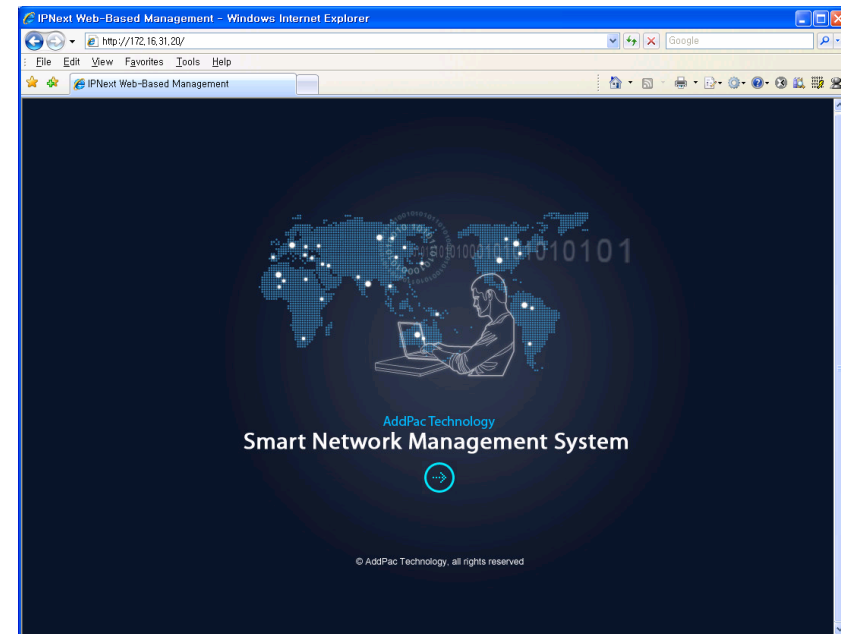
# Smart NMS

## Smart Network Management System for GSM Gateway



# Contents

- System Requirement
- Smart NMS Networking Diagram
- Web-based Management
- Network Resource Management
- Device Fault Management
- Device Fault History Management
- Device Status Information
- Notification Management
- Fault Statistics
- Model & Service Management





# System Requirement

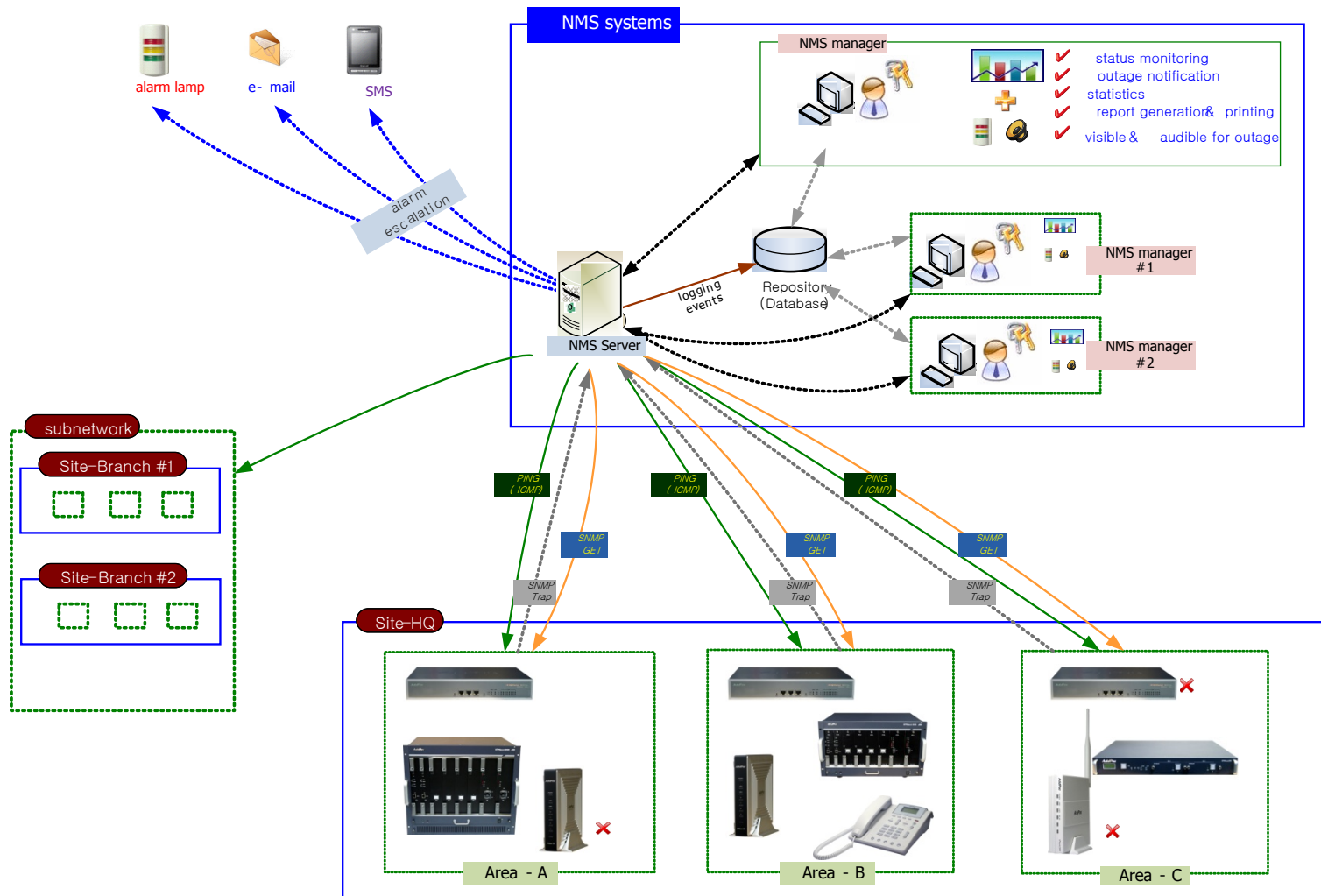
## NMS Server

- OS : RHEL (Redhat Enterprise Linux) 5.0 or higher
- CPU : Quad-Core 2.0 GHz / 1333MHz FSB 2x4 MB cache
- Physical Memory : 4 GB
- HDD : 300 G
- JRE (Java Runtime Environment) 1.5.1 or Higher
- Database : PostgreSQL 8.1.11

## NMS Client

- Windows XP, Vista, Windows Server 2000/2003
- Microsoft Internet Explorer 6.0 or higher

# NMS Networking Diagram



# Web-based Management

- **Easy Access via Web browser**
  - Microsoft Internet Explorer 6.0 or higher compatible
- **Version Control**
  - Automatic version check
  - New version software download feature
- **UI control**
  - User friendly GUI management

# Version Control

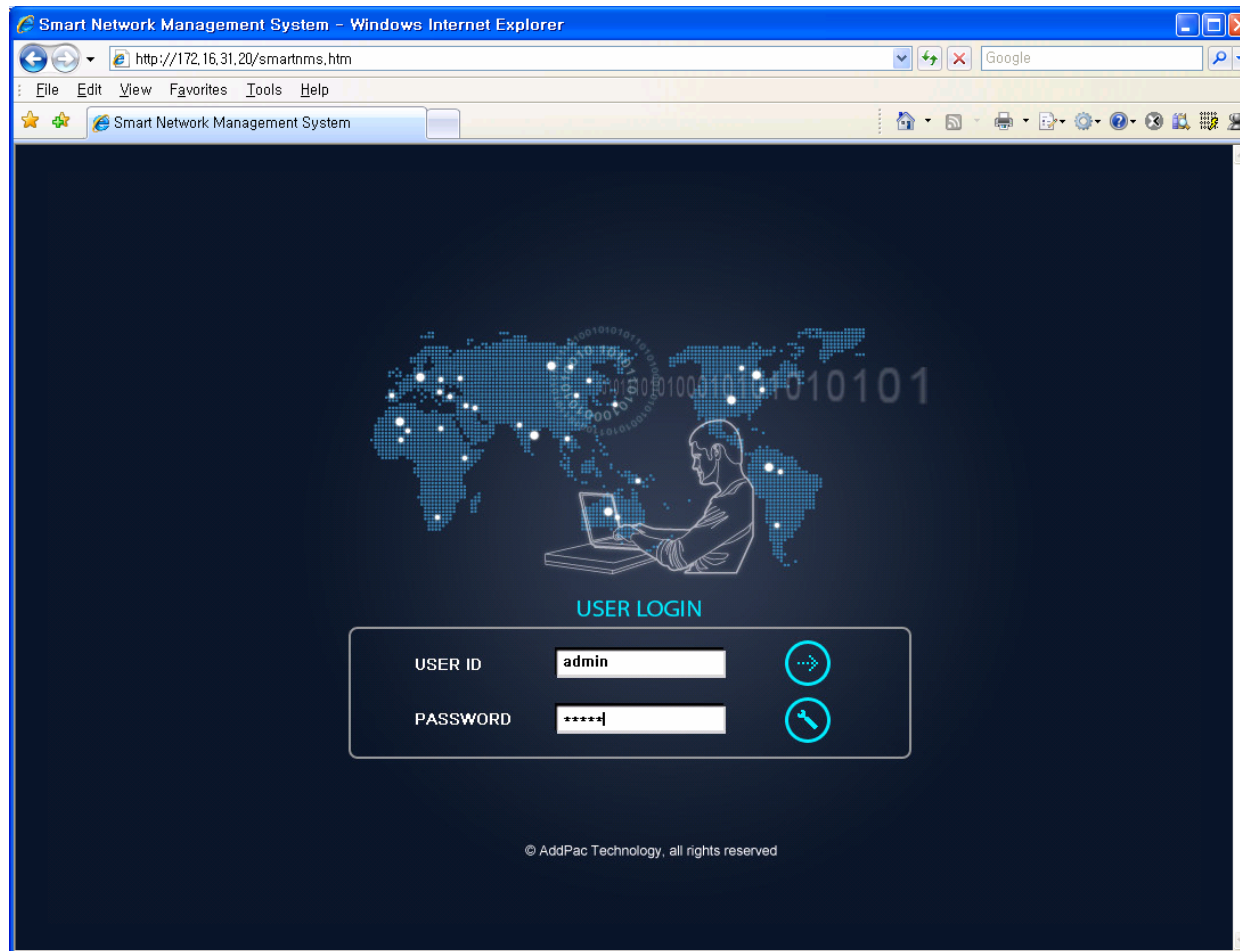
The screenshot displays the IPNext Web-Based Management interface within a Windows Internet Explorer browser window. The browser's address bar shows the URL `http://172.16.31.20/`. The main content area features a dark blue background with a world map and a person using a laptop, with the text "AddPac Technology Smart Network Management System" and a copyright notice "© AddPac Technology, all rights reserved".

Two yellow callout boxes highlight key features:

- Automatic version check:** A yellow box with an arrow pointing to the top of the main interface.
- New S/W version update:** A yellow box with an arrow pointing to the "Downloading installnms" dialog box.

The "Launching Application" dialog box is titled "Launching Application" and contains the text "Verifying application requirements. This may take a few moments." The "Downloading installnms" dialog box is titled "(61%) Downloading installnms" and contains the text "Downloading installnms. This may take several minutes. You can use your computer to do other tasks during the installation." It also displays the file name "installnms", the source "From: 172.16.31.20", and a progress bar showing "Downloading: 6.29 MB of 10.1 MB".

# Web-based Login



# Network Resource Management

- Network resource management with hierarchical structure
- Role-based resource management for each administrator

The screenshot displays the AddPac Network Resource Management interface. On the left, a hierarchical tree structure shows the organization of network resources, including sites like 'AddPac', 'Seoul', and 'GangNamGu'. The main area shows a list of categories such as Desktop, Network Camera, Phone, Server, Switch, and VoIP Gateway. A context menu is open over the tree, highlighting 'Execute SMM'. A 'User Properties' dialog is also visible, showing a selection of site nodes for role-based policy assignment.

**manage the complex network with a structured, hierarchical form**

**can assign the hierarchical node to the operator and manage role-based policy**

**can cooperate with the application executables such as SMM**

# Device Fault Management

- Centralized fault summary information in main window
- Display current fault device through tree view
- Notify administrator with detailed fault information
- Provide device availability information for 24hrs

# Device Fault Management

main window

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a navigation menu with options like NMS, Account, Configuration, Monitoring, Notification, Fault, Statistics, and View. The central area is divided into several sections:

- Current Outage Devices (11):** A tree view on the left showing a hierarchy of devices under 'AddPac', including Branch AQ, Branch GX, and HeadQuarter.
- Service Outages:** A table in the center showing site device fault summaries. It includes columns for Site, Type, Outages, Availability, and Description. The overall total device fault statistics are shown at the bottom of this table as 30 / 11 / 34 with 78.650% availability.
- Device Categories:** A table on the right showing device fault summary for category (classification). It lists categories like Desktop, Network Camera, Phone, Server, Switch, and VoIP Gateway, along with their respective Outages and Availability percentages.
- Your Outstanding Notices (16):** A table at the bottom showing current device fault event messages, including columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message.

current device fault list with hierarchy view

site device fault summary

device fault summary for category (classification)

overall total device fault statistics

current device fault event message are shown as below



# Device Fault Management

Smart Network Management System - Windows Internet Explorer

http://172.16.31.20/smartnms.htm

NMS Account Configuration Monitoring Notification Fault Statistics View Help

Current Outage Devices (12) Site

Service Outages Device Monitoring - <All>

View Mode Large Small Refresh Import

display message icon when the device have a notification for event

device status matrix with several severity such as critical, major, minor

\* severity color

- 1) red : critical
- 2) orange : major
- 3) light blue : normal

Name	Service...	Availability
Branch AQ		
NMS Camera	6 of 12	48.994 %
NMS_IP_PBX...	3 of 3	0.000 %
Branch GX		
00_IVR_server	3 of 3	0.000 %
00_IVR_slave...	3 of 3	0.000 %
00_NR_server	1 of 2	98.015 %
00_PS_server	3 of 3	0.000 %
00_PS_slave...	2 of 3	32.703 %
IPNext 3000 ...	1 of 3	90.536 %
IPNext 3000 S...	1 of 3	90.584 %
UMS slave	3 of 3	0.000 %
HeadQuarter		
UMS server(o...	3 of 3	0.000 %
Subnetwork #2		
Center		
NMS_SOHO_...	2 of 2	92.939 %

Total Monitoring Devices : 34

PK	ID	Send Time	Site	Device Name	IP Address	Service	Message
	9525	4/10/2009 5:21:06 PM	/AddPac/Branch GX	00_NR_server	172.17.111.21	SNMP	인터페이스 172.17.111.21 (172.17.111.21)의 장비명(00_NR_server)의 서비스 SNMP가 2009년 4월 10일 금요일 오후 5시 21분 06초에 실패함.
	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Center	NMS_SOHO_PBX			device NMS_SOHO_PBX, all services are down
	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed.
	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed.
	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down

Your Outstanding Notices (17) All Outstanding Notices (17)

4/10/2009 5:16:30 PM 172.16.31.20:5101 admin Version 1.2.3384

# Device Fault Management

The screenshot displays the Smart Network Management System (NMS) interface. The main area shows a 'device status matrix with small view mode' containing various network devices and their operational status. A red arrow points to a specific device, 'NMS Camera', which is highlighted with a red box. Below the matrix, there is a table of 'Your Outstanding Notices (18)'.

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent.	NMS_SOHD_PBX			device NMS_SOHD_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device [NMS_Camera 2] interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
<input type="checkbox"/>	9238	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device [NMS_Camera 2] interface 172.16.253.118 (172.16.253.118) service ICMP not response or delete by administrator

# Device Fault History Management

- Provide both summary view and detailed event message
- Can Write troubleshooting job note for each event manually
- Administrator can query for a history fault with search condition
- Each fault is related to the several raw events

# Device Fault History Management

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a list of fault events with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, Message, and Respond Time. An 'Advanced Search' dialog box is open, allowing users to filter events based on Sub Network, Site, IP Address, Notice Status Type, Level (Severity), Message Contains, Notices After, Notices Before, and Sort By.

**daily fault event summary statistics information**

DateTime	Outstanding	Acknowledge
2009-04-10	4	27
2009-04-09	2	76
2009-04-08	0	96
2009-04-07	0	40
2009-04-06	7	489
2009-04-05	0	722
2009-04-04	0	708
2009-04-03	1	476
2009-04-02	0	248
2009-04-01	0	19
2009-03-31	0	37
2009-03-30	0	9
2009-03-29	0	3
2009-03-28	0	1
2009-03-27	0	14
2009-03-26	0	52
2009-03-25	0	8
2009-03-24	0	19
2009-03-23	0	59
2009-03-22	0	102
2009-03-21	0	17
2009-03-20	0	21
2009-03-18	0	48
2009-03-17	0	41
2009-03-13	0	36
2009-03-07	0	1
2009-03-06	0	482
2009-03-05	0	38
2009-03-04	0	13

**detail fault event history list up with filter condition (advanced search)**

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message	Respond Time
<input type="checkbox"/>	9528	4/10/2009 5:51:06 PM	/AddPac/Branch AQ	NMS Camera	172.16.4.180	SNMP	interface 172.16.4.180 (172.16.4.180) device(NMS Camera) service SNMP failed at 2009-4-10 5:51 06 PM	4/10/2009 5:51:35 PM
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting room phone device			device 5th floor meeting room phone device, all services are down.	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9526	4/10/2009 5:33:42 PM	/AddPac/Branch GX	00_NR_server	172.17.11.1			4/10/2009 5:22:43 PM
<input type="checkbox"/>	9525	4/10/2009 5:21:06 PM	/AddPac/Branch GX	00_NR_server	172.17.11.1			4/10/2009 5:17:56 PM
<input type="checkbox"/>	9524	4/10/2009 5:17:29 PM	/AddPac/Branch GX	00_NR_server	172.17.11.1			4/10/2009 4:03:13 PM
<input type="checkbox"/>	9522	4/10/2009 3:36:26 PM	/AddPac/HeadQuarter	IP_PBX_Slave(our company)				4/10/2009 4:03:13 PM
<input type="checkbox"/>	9521	4/10/2009 3:36:18 PM	/AddPac/HeadQuarter	PS_server(our co...				4/10/2009 4:03:13 PM
<input type="checkbox"/>	9520	4/10/2009 3:36:17 PM	/AddPac/HeadQuarter	RBT server(our company)				4/10/2009 4:03:13 PM
<input type="checkbox"/>	9519	4/10/2009 3:36:17 PM	/AddPac/HeadQuarter	UMS_server #2				4/10/2009 4:03:13 PM
<input type="checkbox"/>	9518	4/10/2009 3:36:09 PM	/AddPac/HeadQuarter	Recording Server (our company)				4/10/2009 4:03:13 PM
<input type="checkbox"/>	9517	4/10/2009 3:36:08 PM	/AddPac/HeadQuarter	company_MCU_s...				4/10/2009 4:03:14 PM
<input type="checkbox"/>	9516	4/10/2009 3:36:00 PM	/AddPac/Branch GX	00_PS_Slave_ser...				4/10/2009 4:03:13 PM
<input type="checkbox"/>	9514	4/10/2009 3:35:50 PM	/AddPac/Branch GX	00_PS_server				4/10/2009 4:02:54 PM
<input type="checkbox"/>	9513	4/10/2009 3:35:41 PM	/AddPac/HeadQuarter	5th floor meeting room phone device				4/10/2009 4:02:43 PM
<input type="checkbox"/>	9512	4/10/2009 3:35:41 PM	/AddPac/HeadQuarter	IP_PBX_Master (our company)				4/10/2009 4:02:44 PM
<input type="checkbox"/>	9511	4/10/2009 3:35:33 PM	/AddPac/Branch KT	172.16.51.12				4/10/2009 4:02:43 PM

Results: 1 to 20 of 6701 Search Constraints: user=admin

**Your Outstanding Notices (17)**

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting ro...			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Center	NMS_SOHD_PBX			device NMS_SOHD_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_31.13			device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
<input type="checkbox"/>	9238	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service ICMP not response or deleted by administrator
<input type="checkbox"/>	9237	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service SNMP not response or deleted by administrator

# Device Fault History Management

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a list of events with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, Message, Responder, and Respond Time. A 'Troubleshooting Note' dialog box is open, allowing users to add, edit, or delete notes for specific events. The dialog includes a 'Status' dropdown (set to 'Cleared'), a text area for the note, and buttons for 'Add', 'Edit', 'Delete', and 'Help'. An orange callout box with the text 'Can write troubleshooting note if needed' points to the text area in the dialog.

DateTime	Outstanding	Acknowledge
2009-04-10	4	27
2009-04-09	2	76
2009-04-08	0	96
2009-04-07	0	40
2009-04-06	7	489
2009-04-05	0	722
2009-04-04	0	708
2009-04-03	1	476
2009-04-02	0	248
2009-04-01	0	19
2009-03-31	0	37
2009-03-30	0	9
2009-03-29	0	3
2009-03-28	0	1
2009-03-27	0	14
2009-03-26	0	52
2009-03-25	0	8
2009-03-24	0	19
2009-03-23	0	59
2009-03-22	0	102
2009-03-21	0	102
2009-03-20	0	102
2009-03-19	0	102
2009-03-18	0	102
2009-03-17	0	102
2009-03-16	0	102
2009-03-15	0	102
2009-03-14	0	102
2009-03-13	0	102
2009-03-12	0	102
2009-03-11	0	102
2009-03-10	0	102
2009-03-09	0	102
2009-03-08	0	102
2009-03-07	0	102
2009-03-06	0	102
2009-03-05	0	102
2009-03-04	0	102

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message	Responder	Respond Time
<input checked="" type="checkbox"/>	9528	4/10/2009 5:51:06 PM	/AddPac/Branch AQ	NMS Camera	172.16.4.180	SNMP	interface 172.16.4.180 (172.16.4.180) device(NMS Camera) service SNMP failed at 2009-4-10 5:51 06 PM	auto-acknowledged	4/10/2009 5:51:35 PM
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/Branch AQ	5th floor meeting room phone device			device 5th floor meeting room phone device, all services are down.	to-acknowledged	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9526	4/10/2009 5:33:42 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9525	4/10/2009 5:21:06 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:22:43 PM
<input type="checkbox"/>	9524	4/10/2009 5:17:29 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:17:56 PM
<input type="checkbox"/>	9522	4/10/2009 3:36:26 PM	/AddPac/Branch AQ	IP: cor				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9521	4/10/2009 3:36:18 PM	/AddPac/Branch AQ	PS RB cor				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9520	4/10/2009 3:36:17 PM	/AddPac/Branch AQ	UW ter				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9519	4/10/2009 3:36:17 PM	/AddPac/Branch AQ	IP: (ou				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9518	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	ter (ou				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9517	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	co				to-acknowledged	4/10/2009 4:03:14 PM
<input type="checkbox"/>	9516	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9515	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:54 PM
<input type="checkbox"/>	9514	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9513	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	ter (ou				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9512	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9511	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9510	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9509	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	ter (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9508	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	co				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9507	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9506	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9505	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9504	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	ter (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9503	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9502	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9501	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9500	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	ter (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9499	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	co				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9498	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9497	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9496	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9495	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	ter (ou				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed	to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.	to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_31.13			device NMS_IP_PBX_31.13 all services down.	to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or deleted by administrator	to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9238	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service ICMP not response or deleted by administrator	to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9237	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service SNMP not response or deleted by administrator	to-acknowledged	4/10/2009 4:02:43 PM

# Current Device Fault (Outage)

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of network devices on the left and a table of 'Current Outage Devices' on the right. The 'Current Outage Devices' table lists various devices and their availability percentages. An orange callout box points to this table with the text: "Display the current all device faults".

An 'Event Detail' window is open for event ID 45412. It shows the following information:

- Event Time: 4/10/2009 9:26:04 PM
- Site: /AddPac/Branch GX
- Device Name: 00\_RBT\_server
- Device Model: AP-RBT1000
- Severity: Critical
- Log Message: device 00\_RBT\_server down
- Description: device 00\_RBT\_server's all interface down. A new Outage record has been created and service level availability calculations will be impacted until this outage is resolved.

An orange callout box points to the 'Event Detail' window with the text: "Can view the event data related to the current device fault and can write troubleshooting note if needed". Below the description is a 'Troubleshooting Note List' table with columns for Time, User, Status, and Note.

At the bottom of the interface, there is a section for 'Your Outstanding Notices (18)' with a table listing various notices and their details.

# Device Event History

**Smart Network Management System - Windows Internet Explorer**

http://172.16.31.20/smartnms.htm

NMS Account Configuration Monitoring Notification Fault Statistics View Help

Site Event Summary Service Outages Event Notification Destination Paths Users View Current Outages View Outages View Events

Event Time	Outsta...	Ackno...	Not Clea...	Cleared	In Pr...
2009-04-13	40	0	40	0	0
2009-04-12	6	0	6	0	0
2009-04-11	314	0	314	0	0
2009-04-10	182	0	182	0	0
2009-04-09	290	0	290	0	0
2009-04-08	412	0	412	0	0
2009-04-07	448	0	448	0	0
2009-04-06	1453	0	1453	0	0
2009-04-05	1704	0	1704	0	0
2009-04-04	1712	0	1712	0	0
2009-04-03	1276	0	1276	0	0
2009-04-02	799	0	799	0	0
2009-04-01	271	0	271	0	0
2009-03-31	277	0	277	0	0
2009-03-30	212	0	212	0	0
2009-03-29	17	0	17	0	0
2009-03-28	2	0	2	0	0
2009-03-27	108	0	108	0	0
2009-03-26	292	0	292	0	0
2009-03-25	46	0	46	0	0
2009-03-24	121	0	121	0	0
2009-03-23	1904	0	1904	0	0
2009-03-22	2643	0	2643	0	0
2009-03-21	354	0	354	0	0
2009-03-20	172	0	172	0	0
2009-03-19	1	0	1	0	0
2009-03-18	1294	0	1294	0	0
2009-03-17	788	0	788	0	0
2009-03-16	14	0	14	0	0
2009-03-15	3	0	3	0	0

Limit: 20 Refresh Advanced Search Acknowledge Events Troubleshooting Note

Ack	ID	Severity	Event Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	45786	Critical	4/13/2009 11:24:42 AM	/AddPac/Branch GX	SE_MG3000N_A	172.17.111.25		Agent Up with enterprise: 1.3.6.1.4.1.4855.3.2.255 args [1.1.3.6.1.4.1.4855.3.2.255]
<input type="checkbox"/>	45785	Cleared	4/13/2009 11:15:59 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21	SNMP	SNMP data collection on interface 172.17.111.21 previously failed and has been restored. Node 00_NR_server is up.
<input type="checkbox"/>	45784	Cleared	4/13/2009 11:15:52 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21		Agent Up with Possible Changes (coldStart Trap) enterprise: 1.3.6.1.4.1.4855.3.2.10 [1.1.3.6.1.4.1.4855.3.2.10] args [1.1.3.6.1.4.1.4855.3.2.10]
<input type="checkbox"/>	45783	Critical	4/13/2009 11:15:51 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21		Node 00_NR_server is down.
<input type="checkbox"/>	45782	Critical	4/13/2009 11:15:13 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21	SNMP	SNMP data collection on interface 172.17.111.21 failed.
<input type="checkbox"/>	45781	Warning	4/13/2009 11:14:57 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21	SNMP	SNMP thresholding on interface 172.16.31.13 failed.
<input type="checkbox"/>	45780	Warning	4/13/2009 10:00:15 AM	/AddPac/Branch AQ	NMS_IP_PBX_31...	172.16.31.13	SNMP	SNMP thresholding on interface 172.16.31.16 failed.
<input type="checkbox"/>	45779	Warning	4/13/2009 10:00:15 AM	/Subnetwork #2/Cent...	NMS_IP_PBX_31...	172.16.31.16	SNMP	SNMP data collection on interface 172.17.113.201 failed.
<input type="checkbox"/>	45778	Warning	4/13/2009 9:59:51 AM	/AddPac/Branch GX	UMS slave	172.17.113.201	SNMP	SNMP data collection on interface 172.17.113.201 failed.
<input type="checkbox"/>	45777	Warning	4/13/2009 9:59:46 AM	/AddPac/Branch GX	UMS slave	172.17.113.201	SNMP	SNMP data collection on interface 61.33.161.43 failed.
<input type="checkbox"/>	45776	Warning	4/13/2009 9:59:42 AM	/AddPac/HeadQuarter	UMS server(our co...	61.33.161.43	SNMP	SNMP data collection on interface 61.33.161.43 failed.
<input type="checkbox"/>	45775	Warning	4/13/2009 9:59:41 AM	/AddPac/HeadQuarter	UMS server(our co...	61.33.161.43	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45774	Warning	4/13/2009 9:59:36 AM	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45773	Warning	4/13/2009 9:59:33 AM	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45772	Warning	4/13/2009 9:59:32 AM	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45771	Warning	4/13/2009 9:59:27 AM	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45770	Warning	4/13/2009 9:59:24 AM	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45769	Warning	4/13/2009 9:59:23 AM	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45768	Warning	4/13/2009 9:59:18 AM	/AddPac/Branch AQ	NMS_IP_PBX_31...	172.16.31.13	SNMP	SNMP data collection on interface 172.16.31.13 failed.
<input type="checkbox"/>	45767	Warning	4/13/2009 9:59:15 AM	/AddPac/Branch AQ	NMS_IP_PBX_31...	172.16.31.13	SNMP	SNMP data collection on interface 172.16.31.13 failed.

Results: 1 to 20 of 25346 Search Constraints: user=admin

summarize daily event statistics data

Site	Device Name	IP Address	Service	Message
/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
/AddPac/HeadQuarter	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
/Subnetwork #2/Cent...	NMS_SOHO_PBX			device NMS_SOHO_PBX, all services are down.
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave 172.17.113.41 Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	device NMS_IP_PBX_31 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator

Your Outstanding Notices (18) All Outstanding Notices (18)

4/13/2009 11:46:45 AM 172.16.31.20:5101 admin Version 1.2.3384

Can view all events for devices with search condition

# Device Status Information

- System Performance Information (CPU, HDD, Memory,...)
- Provide device current service status (up/down)
- Provide device main status (max value vs current value)
- Display Graph Series with System Performance Information
- Monitor Main Status Flow with System Monitoring View



# Device Status Information

**Status Information - IPNext 3000 Master**

System Status Information | Performance History | Performance Monitoring

**Today's Availability**

90

**CPU Utilization**

95

**Memory Utilization**

67

Total : 1024 MB  
Used : 686.3 MB  
Free : 337.7 MB

**Storage Utilization**

0

Total : 298 GB  
Used : 203.4 MB  
Free : 297.8 GB

/hd

**Interface Status**

Index	Name	IP Address	Speed	Status	Rx Traffic	Tx Traffic	Errors (pkts)
2	GigabitEthernet0/0	172.17.113.40	1Gbps	● up	9.7Kbps	10.1Kbps	0
3	GigabitEthernet0/1	0.0.0.0	1Gbps	● down	0 bps	0 bps	0

**Service Information (Availability: Percentage over last 24 hours)** [Apply](#)

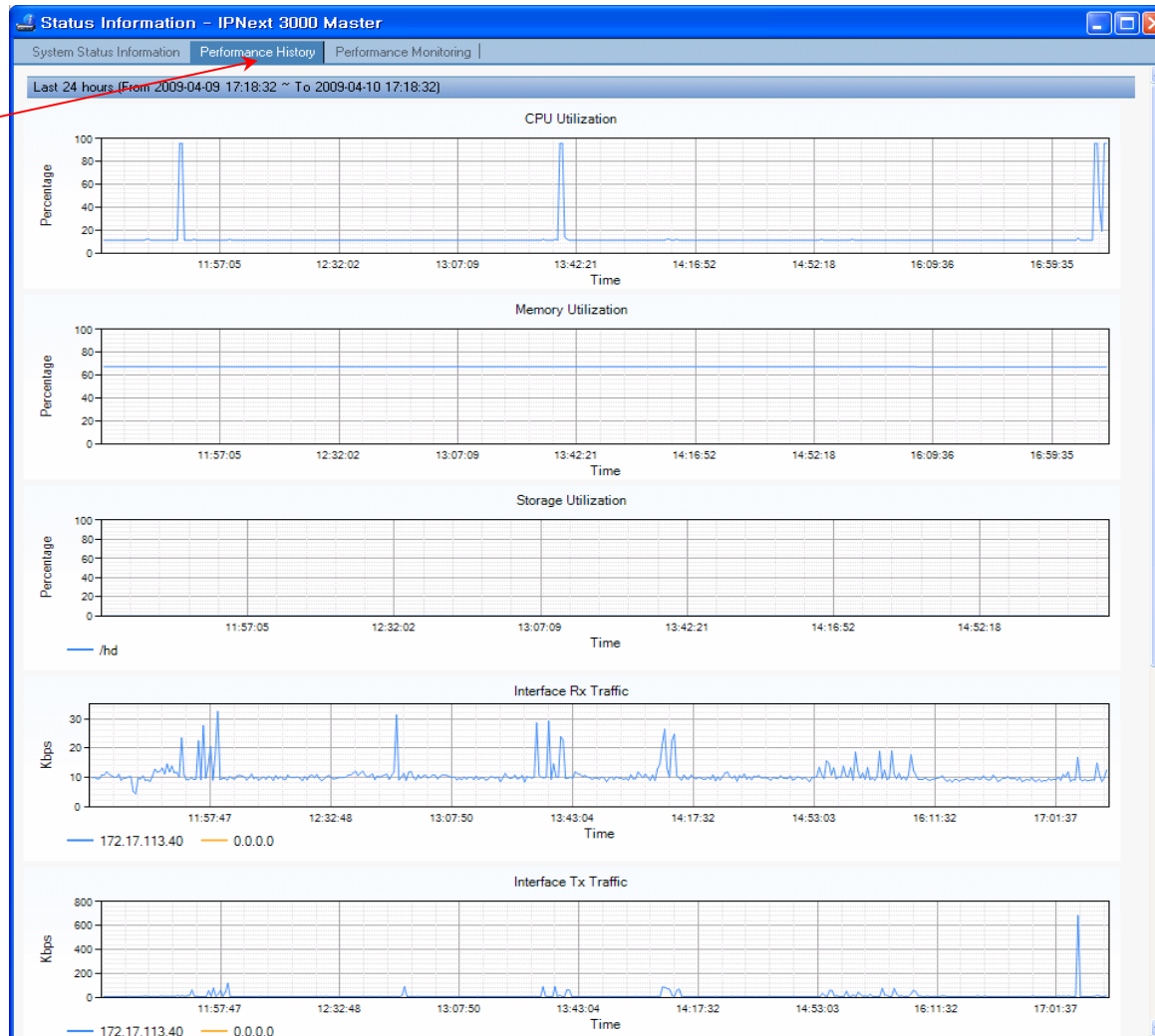
Interface / Service Name	Status	Availability
<input checked="" type="checkbox"/> Call Manager	● down	76.001%
<input checked="" type="checkbox"/> 172.17.113.40		
<input checked="" type="checkbox"/> ICMP	● up	97.743%
<input checked="" type="checkbox"/> SNMP	● up	97.743%
<b>Overall Availability</b>		<b>90.496%</b>

**Service Monitor Status**

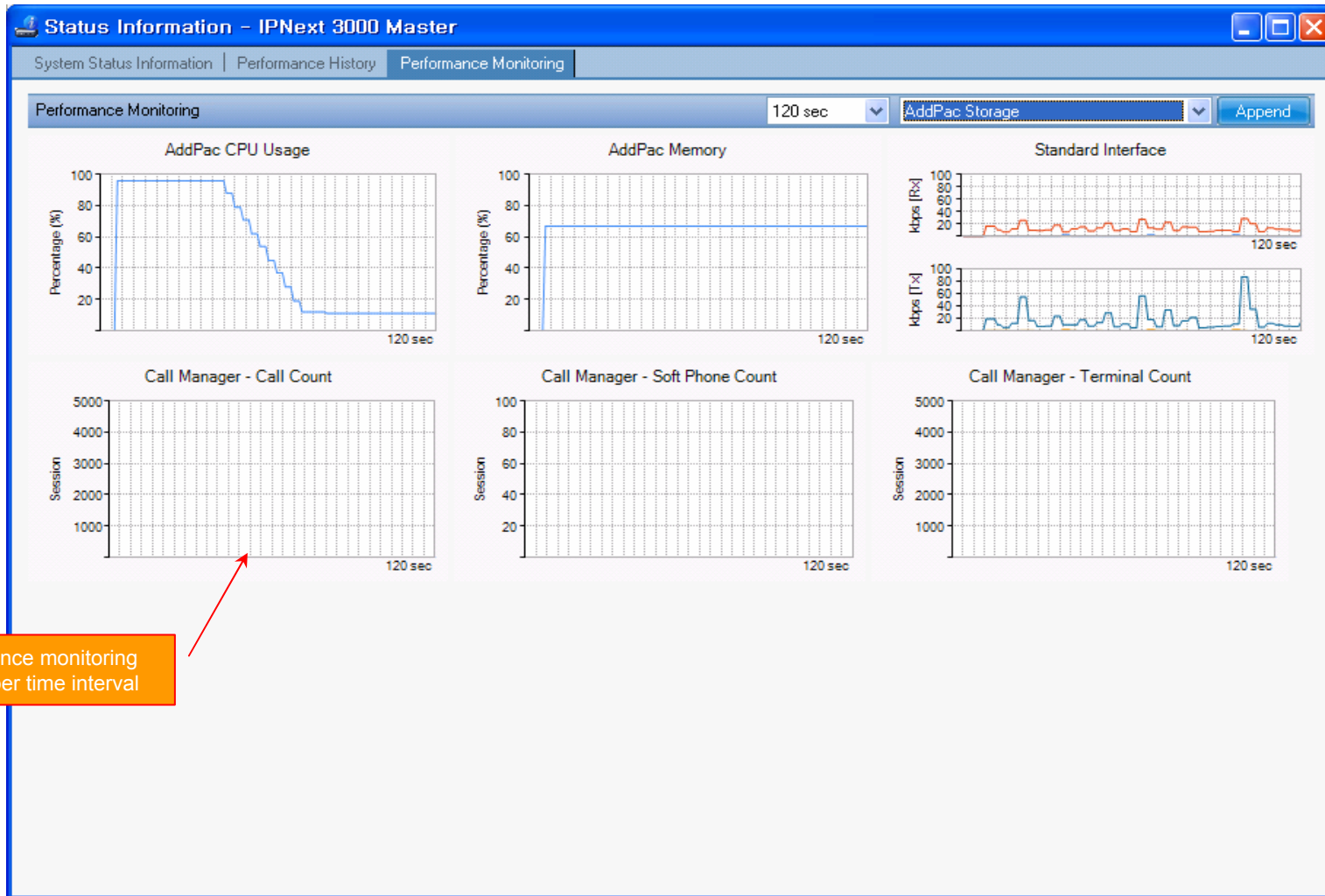
Service	Maximum	Value	Used
CM Service			
Call Manager - Call Count	5000	0	0%
Call Manager - Soft Phone Count	100	0	0%
Call Manager - Terminal Count	5000	7	0%

# Device Status Information

performance analysis graph for last 24 hours



# Device Status Information



# Notification Management

- Notify administrator for important event such as critical device fault when proper action needs
- Provide several notification channel such as SMS, e-mail, alarm lamp
- Notification channel configuration for each event
- Manage notification with device category such as Server, Terminal, PC, etc
- Provide Alarm with audible (play sound), visible (alarm lamp) form

# Event Notification Management

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of devices and a table of event notifications. A dialog box titled 'Event Notification Properties' is open, showing configuration details for a notification named 'serviceUnresponsive'.

**Event Notification Properties Dialog:**

- Notification Name: serviceUnresponsive
- Description: test
- Event: Node event: serviceUnresponsive
- Destination Path: default
- Notification Type: sms, alarmLamp, email
- Current Rule: IPADDR IPLIKE \*\*\*\*
- Apply Category: Desktop, Network Camera, Phone, Server, Switch
- Email Subject: Notice #%noticeid%: %service% service on %interface% (%interface%)
- Text Message: The %service% poll to interface %interface% (%interface%) on node %nodename% successfully completed a connection to the service listener on the remote machine. However, the synthetic transaction failed to complete within %parm[timeout]% milliseconds, over %parm[attempts]% attempts. This event will NOT impact service level agreements, but may be an indicator of other problems on that node.
- Special Values: Can be used in both the text message and email subject. %noticeid% = notification ID number, %time% = time sent, %severity% = event severity, %nodename% = may be IP address or empty, %interface% = IP address, may be empty, %service% = service name, may be empty, %eventid% = event ID, may be empty.
- Note: If the alert exceeds 80 bytes then the notification will be dispatched in two or more sms.
- Enable Notification:

**Event Notification Table:**

Notification Name	Event	Destination Path	Description
serviceUnresponsive	Node event: serviceUnresponsive	NMS Admin	test
serviceResponsive	Node event: serviceResponsive	NMS Admin	
interfaceDown	Node event: interfaceDown	NMS Admin	
nodeDown	Node event: nodeDown	NMS Admin	
interfaceUp	Node event: interfaceUp	NMS Admin	
nodeUp	Node event: nodeUp	NMS Admin	
nodeLostService	Node event: nodeLostService	NMS Admin	
nodeRegainedService	Node event: nodeRegainedService	NMS Admin	
coldStart	SNMP Trap: SNMP Cold Start	NMS Admin	
warmStart	SNMP Trap: SNMP Warm Start	NMS Admin	
authenticationFailure	SNMP Trap: SNMP Authen Failure	NMS Admin	
serviceDeleted	Node event: serviceDeleted	NMS Admin	
nodeAdded	Node event: nodeAdded	NMS Admin	
nodeInfoChanged	Node event: nodeInfoChanged	NMS Admin	
interfaceDeleted	Node event: interfaceDeleted	NMS Admin	
High Threshold	highThresholdExceeded	NMS Admin	
Low Threshold	lowThresholdExceeded	NMS Admin	
Low Threshold Rearmed	lowThresholdRearmed	NMS Admin	
High Threshold Rearmed	highThresholdRearmed	NMS Admin	

**Your Outstanding Notices (18):**

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server		device.00_RBT_server.all services	
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th_floor_meeting...			
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHO_PBX			
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		

apply notification policy with event-based filter (example : notify me when network link of device is downed through SMS, e-mail)

specify category when each event occurs

describe notification message content for e-mail or SMS

# Event Notification Management

The screenshot shows the Smart Network Management System (NMS) interface. The main window displays a tree view of network devices and their service availability. A dialog box titled "Destination Path Properties" is open, showing configuration options for a destination path named "default".

The "Destination Path Properties" dialog includes the following sections:

- Destination Path Name:** default
- Initial Target:** (empty)
- Initial Delay:** 0m
- Notification Type Table:**

Notification Type	Target	Auto Notify
alarmLamp	alarmLamp	on
email	admin	on
sms	admin	on
- Escalation Table:** (empty)
- Buttons:** Add, Delete, Help, Ok, Cancel

A red callout box with the text "define notification channel such as e-mail, sms, or alarmLamp" points to the "alarmLamp" entry in the Notification Type table.

At the bottom of the interface, there is a table of "Your Outstanding Notices (18)":

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RB_T_server			device 00_RB_T_server's all services are down.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHD_PBX			device NMS_SOHD_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS_Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator

# Event Notification Management

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of network devices and their service availability. Two dialog boxes are open: 'Destination Path Properties' and 'Target Properties'.

The 'Target Properties' dialog is the primary focus, showing the configuration for event notifications. It includes the following fields and options:

- Choose the notification type:** A dropdown menu with options: sms, email, mobile. The 'sms' option is selected.
- Target Information:**
  - Send to select user: A dropdown menu showing 'Account Administrator'.
  - Send to Email or Mobile: Includes a 'Mobile Number' text input field.
- Choose the desired behavior for automatic notification on responded events:** A dropdown menu with the option 'on' selected.

An orange callout box with a red arrow pointing to the 'Send to select user' dropdown contains the text: "user account (administrator) setting for SMS, E-mail Notification or specify e-mail address or SMS phone number".

At the bottom of the NMS interface, there is a table titled 'Your Outstanding Notices (18)'. The table has columns for Ack, ID, Send Time, Site, Device Name, and IP Address. The following table represents the data shown in the screenshot:

Ack	ID	Send Time	Site	Device Name	IP Address
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server	
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeti...	
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHO_PBX	
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server	
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...	
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118

# Configuration

Smart Network Management System - Windows Internet Explorer

http://172.16.31.20/smartnms.htm

NMS Account Configuration Monitoring Notification Fault Statistics View Help

Current Outage Devices [13] Site

Name	Service...	Availability
AddPac		
Branch AQ		
NMS Camera	6 of 12	50.000 %
NMS_IP_PBX...	3 of 3	0.000 %
Branch GX		
00_IVR_server	3 of 3	0.000 %
00_IVR_slave...	3 of 3	0.000 %
00_PS_server	3 of 3	0.000 %
00_PS_slave...	2 of 3	33.333 %
00_FBT_server	3 of 3	0.000 %
IPNext 3000 ...	1 of 3	66.667 %
IPNext 3000 S...	1 of 3	66.667 %
UMS slave	3 of 3	0.000 %
HeadQuarter		
5th floor meeti	1 of 1	0.000 %
UMS serverfo...	3 of 3	0.000 %
Subnetwork #2		
Center		
NMS_S0HD_...	2 of 2	0.000 %

Configure Notification

External Notification Alarm Lamp

E-Mail SMS

Sender Email Address: nms@addpac.com

SMTP Server Host: 61.33.161.2

Authentication

Username: \_\_\_\_\_

Password: \_\_\_\_\_

Help Ok Cancel

global notification channel configuration

Your Outstanding Notices (18)

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_FBT_server			device 00_FBT_server's all services are down.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_S0HD_PBX			device NMS_S0HD_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS_Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator

4/13/2009 11:26:16 AM 172.16.31.20:5101 admin Version 1.2.3984



# Audible & Visible Alarm

notify operator (or administrator)  
 1. Alarm lamp blink (on&off) (visible)  
 2. play alarm sound (audible)

can synchronize with alarm lamp equipment

Site	Type	Outages	Availability	Description
AddPac	Sub Netw...	32 / 12 / 32	92%	AddPac Technology C...
Seoul	Sub Netw...	2 / 1 / 2	33%	Seoul subnetwork

Category	Outages	Availability
Desktop	0 / 0 / 1	100%
Network Camera	6 / 1 / 2	57%
Phone	1 / 1 / 3	66%
Server	27 / 11 / 22	42%
Switch	0 / 0 / 0	100%
VoIP Gateway	0 / 0 / 6	100%

Overall Availability	Count	Percentage
Overall Availability	34 / 13 / 34	27.690 %
Overall Categories Availability	34 / 13 / 34	49.470 %

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuater	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_S0HQ_PBX			device NMS_S0HQ_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
<input type="checkbox"/>	9238	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service ICMP not response or deleted by administrator
<input type="checkbox"/>	9237	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service SNMP not response or deleted by administrator
<input type="checkbox"/>	9236	4/6/2009 7:41:25 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device(NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service ICMP not response or deleted by administrator
<input type="checkbox"/>	9235	4/6/2009 7:41:25 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device(NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service SNMP not response or deleted by administrator

4/13/2009 11:52:14 AM 172.16.31.20:5101 admin Version 1.2.3384

# Fault Statistics

- analyze for a fault event with graph and detailed list data
- Report form generation and print out for statistics result

# Fault Statistics

The screenshot displays the Smart Network Management System (NMS) interface. The main content area shows a search bar with the following conditions: Search Condition: Hour 4/ 9/2009 ~ 3/30/2009; Search Category: Site Branch A, Branch AQ, B. Below the search bar is a bar chart titled "Fault Statistics (Site)" showing fault counts over time for various sites. The chart shows a significant peak in fault counts around 15:00. Below the chart is a detailed data table for the date 4/9/2009, showing fault counts for each hour across different sites. The total fault count for the day is 118.

**Search Condition:** Hour 4/ 9/2009 ~ 3/30/2009; Search Category: Site Branch A, Branch AQ, B

**Fault Statistics (Site) - 4/9/2009**

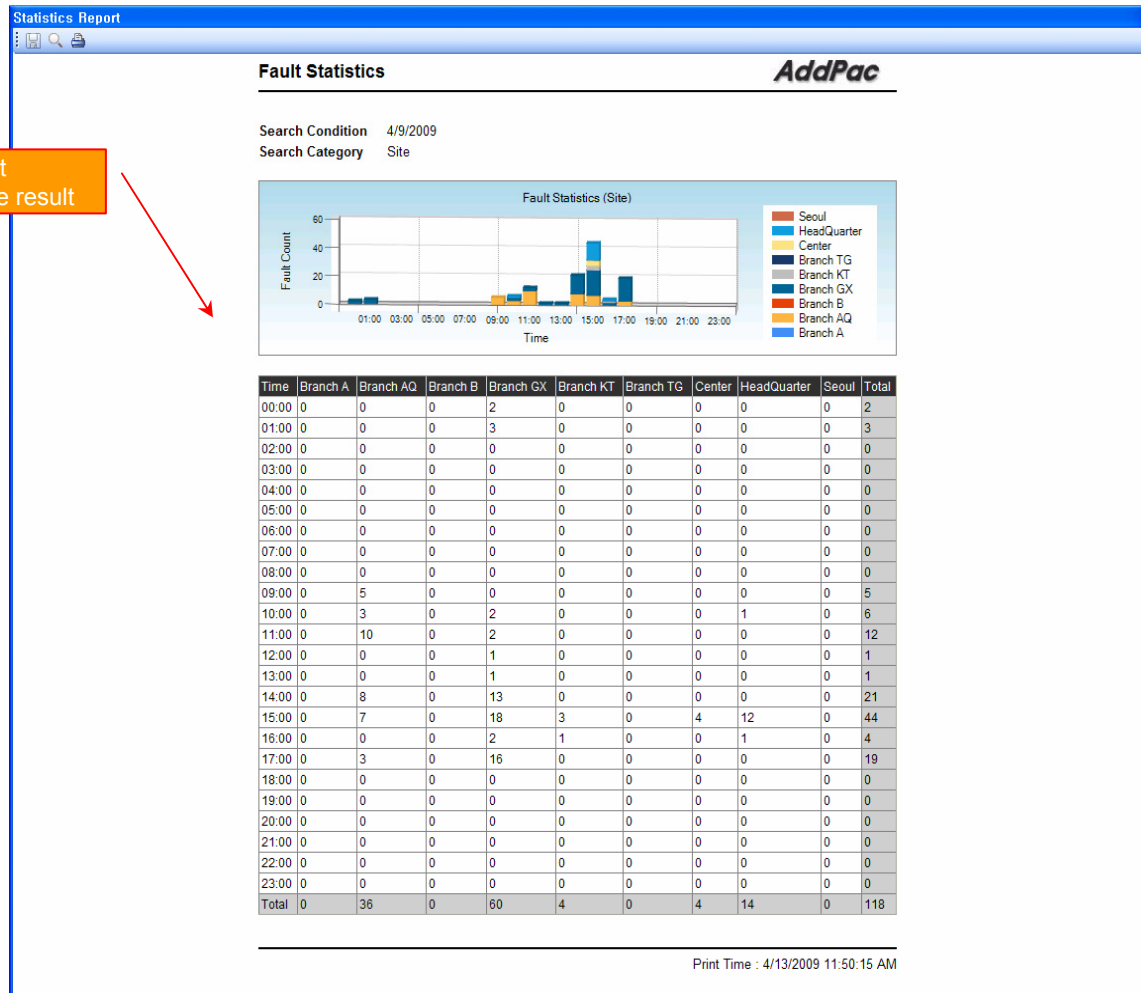
Time	Branch A	Branch AQ	Branch B	Branch GX	Branch KT	Branch TG	Center	HeadQuarter	Seoul	Total
07:00	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
09:00	0	5	0	0	0	0	0	0	0	5
10:00	0	3	0	2	0	0	0	1	0	6
11:00	0	10	0	2	0	0	0	0	0	12
12:00	0	0	0	1	0	0	0	0	0	1
13:00	0	0	0	1	0	0	0	0	0	1
14:00	0	8	0	13	0	0	0	0	0	21
15:00	0	7	0	18	3	0	4	12	0	44
16:00	0	0	0	2	1	0	0	1	0	4
17:00	0	3	0	16	0	0	0	0	0	19
18:00	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>60</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>14</b>	<b>0</b>	<b>118</b>

**Callout 1:** display graph for fault statistics with various search condition

**Callout 2:** display detailed data for fault statistics

# Fault Statistics – Report Generation

report generation for fault statistics and print out the result



# Model & Service Management

- Define new model with provided template image & properties
- Customize data collection with standard protocol such as TCP, SNMP

# Device Model Management

manage device model with various properties such as model image

model image repository for selection

Model Name	Category
AP-IP200	Phone
AP-IP300	Phone
AP-IPC	Network Camera
AP-IPC250M	Network Camera
AP-IVR1000	Server
AP-MC1000	Server
AP-MC3000	Server
AP-MC5000	Server
AP-NR2000	Server
AP-PS2000	Server
AP-RBT1000	Server
AP-RS2000	Server
AP-UMS1000	Server
AP-UMS2000	Server
AP-VC2000	Phone
AP-VP200	Phone
AP-VP300	Phone
AP-VP350	Phone
AP-VP500	Phone
IPNext100	Server
IPNext1000	Server
IPNext180	Server
IPNext200	Server

Model Name	Category	SSCP Port
AP-IPC250M	Network Camera	5061 (1~65535)

Model Image
[Image 1]
[Image 2]
[Image 3]
[Image 4]
[Image 5]
[Image 6]
[Image 7]
[Image 8]
[Image 9]
[Image 10]
[Image 11]
[Image 12]
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[Image 100]

# Service Definition

define the service for data collection, current status with standard protocol such as TCP or SNMP

The screenshot displays the Smart NMS web interface in Internet Explorer. The main window shows a tree view of sites on the left and a list of services in the center. A 'Service Properties' dialog box is open, showing the configuration for a service named 'Camera Operation Status'. The dialog has two tabs: 'General' and 'SNMP'. The 'General' tab is active, showing the service name, protocol (SNMP), and port (161). The 'SNMP' tab is also visible, showing the Service OID (1.3.6.1.4.1.4855.7.51.1.3.0) and a service condition (Operator: =, Operand: 1).

Service Name	Protocol	Port
Call Manager	SNMP	161
Presence	SNMP	161
Media	SNMP	161
IPX	SNMP	161
RtpProxy	SNMP	161
MCU	SNMP	161
IVR	SNMP	161
Recording	SNMP	161
Tomcat	TCP	8080
FTP	TCP	21
Camera Pan	SNMP	161
Camera Tilt	SNMP	161
Camera Zoom	SNMP	161
Camera Operation Status	SNMP	161

Site	Description
AddPac	AddPac Technology C...
Branch AQ	Branch AQ
Branch GX	Branch GX description
Branch KT	Branch KT
HeadQuarter	Main HeadQuarter Cen...
Seoul	Seoul subnetwork
Seoul East Area	Seoul East Area
SongPaGu Area Ce...	SongPaGu Area Center
Subnetwork #2	Subnetwork #2
SongPaGu Area Center	SongPaGu Area Center
North Area	North Area
South Area	South Area
NamGu	NamGu
Sam Area	Sam Area
Seocho district	Seocho district
West Area	West Area
Gangseo Area	Gangseo Area
Seoul	Seoul
MokDong Area	MokDong Area

Site	Device Name	IP Address	Service	Message
/AddPac/Branch GX	00_RBT_server			device 00_RBT_serv
/AddPac/HeadQuarter	5th floor meeting...			device 5th floor meet
/Subnetwork #2/Cent...	NMS_SDHD_PBX			device NMS_SDHD_P
/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113
/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	Call Manager 2009-4
/AddPac/Branch GX	00_IVR_server			interface 172.17.113
/AddPac/Branch AQ	NMS_IP_PBX_3...			device NMS_IP_PBX
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	response or delete by
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	ICMP not response o
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera
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# Thank you!

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